

The future of interactive entertainment
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Mancunian codehouse Ocean has long been derided for its hit factory image and catalogue of underprogrammed, over-licensed software. Edge meets internal development team, Tribe, for the lowdown on its first wave of grown-up interactive entertainment
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Young pretenders steal a march

Nintendo's domination of the Japanese videogames industry seemed all but unconquerable a few years ago. Slowly but surely, however, the might of Sega and Sony has been eroding the infrastructure that the Kyoto giant has built up. With N64 suffering even more delays, its interminable development period is proving to be a time Nintendo will be keen to forget.

The Japanese market is unique to videogaming. The euphoria that surrounds big-name releases is incomparable to the west, guaranteeing an enormous consumer market that thrives on mountains of disposable income. A year after release, both Sega and Sony claim to have sold more than two million of their respective machines. This combined figure represents just less than half of Nintendo's installed base of Super Famicoms, an impressive indictment of the voracious Japanese public's buying power.

The fierce competition in the Japanese market has forced the cost of 32bit videogaming in Japan to tumble. Sega's redesigned Saturn costs just ¥20,000 (£125) – even less than the retail price of the cartridge-based SFC. Now game otakus can afford to play a part in both company's dreams. In contrast, sales of 32bit consoles outside both companies' homeland have been less impressive. High retail prices and lower levels of distribution are traits that continue to haunt the UK industry, but even so, a battle has ensued with both Sony and Sega claiming to be victor. With videogaming's one-time also-rans now establishing firm footholds, Nintendo's proposed coup de grâce has a lot to do in reclaiming lost ground in a war still in its infancy.

The **future** is almost here...

inside







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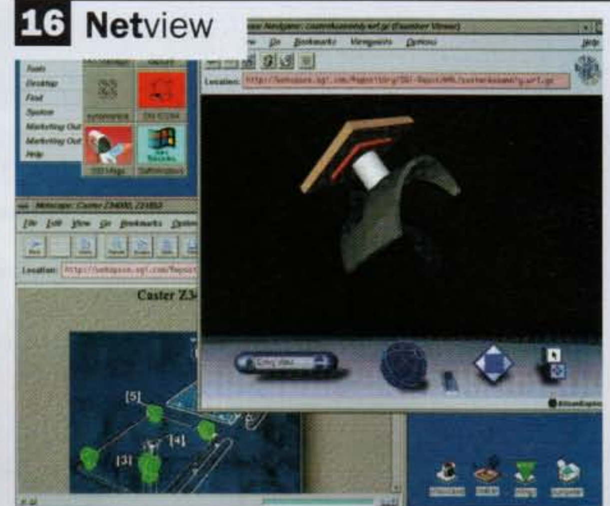
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ITC Franklin Gothic/**Heavy**
Bell Gothic Light/**Black**
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Photography: Jude Edginton






Photography: Jude Edginton

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CeBIT show in Hannover (left), Saturn turns white (top right), ***Virtua Fighter 3*** (above)

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The latest **news** from the world of interactive entertainment

Sega and **Sony** in sales figures fracas

As each company boasts about its performance, who is telling fibs?

Sega has dealt another blow to arch rival Sony in its domestic market. On 22 March the company released a remodelled Japanese Saturn complete with an impressively low retail price of ¥20,000 (£130) – a figure exactly half the price of when the console was launched eighteen months ago. It's expected this new model Saturn won't make it to the UK until at least the autumn.

The machine, which now comes adorned with an off-white livery, marks a subtle redesign, and it seems likely the bulk of the change has occurred under the casing with an optimisation of the notoriously expensive chipset saving on manufacturing costs. The cosmetic improvements are certainly noticeable, though, the older grey unit looking mundane by comparison.

The most significant aspect of this strategy is the fact that Sega has undercut the price of Sony's PlayStation by ¥4,800 (£30). However, Sony's own package includes an extra controller and memory card – a bundling exercise targeted almost solely at the release of Namco's *Tekken 2* due to hit the Tokyo streets shortly.

Sega's official Japanese sales pitch is that it expects to reach an installed base of 2.5 million Saturns by the end of the year, with ambitious claims of sales of a further 2.5 million machines between now and next March. According to the Nikkei daily newspaper, Sega's market share increased from 12 percent in 1994 to 32 percent in 1995. By contrast Nintendo's market share was estimated to have fallen from 75 percent to 33 percent.



Sega's new Saturn pad retains the same style thumbpad, preferred by beat 'em up fans

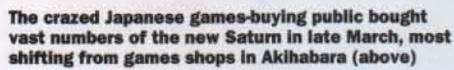


The redesigned Japanese Saturn now clocks in at an astonishingly low price of ¥20,000 (£125), potentially assuring a huge market for Sega

In the UK, Saturn sales have undoubtedly been less impressive, with only the jostling of software titans *VF2*, →



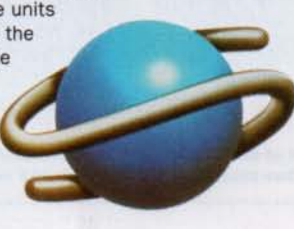



The crazed Japanese games-buying public bought vast numbers of the new Saturn in late March, most shifting from games shops in Akihabara (above)

→ *Sega Rally* and *Virtua Cop* strengthening the Saturn offensive. Despite this, Sega UK's marketing department recently broke from a period of silence claiming to have outsold Sony in the UK market. 'Two weeks ago the gap was down to just 38 machines,' commented Sega's European marketing boss, **Andy Mee**. 'We and our dealers are confident enough to say we have not only closed that gap but have reversed the position. Sony spent £5 million supporting the PlayStation; now that their marketing hype has died down, the market is being driven by product and games portfolio.'

Recent Gallup figures that had placed Saturn just two points behind PlayStation were apparently based on sales of both machines over week-on-week sales, and not an accurate depiction of the total installed base. In fact, Sony are adamant that a stock shortage of PlayStations during that period has distorted what is actually a considerable PlayStation lead. Sony suggests 'a generous estimate' of how many Saturns have sold-through would be around 70,000. The company maintains 160,000 PlayStations have already been purchased in the UK.

Outraged by Sega's claim, Sony has reacted by suggesting an independent adjudication to be overseen by UK games trade paper, CTW. Sega's European marketing boss, Andy Mee, told CTW, 'We never said we had sold more than Sony – we admit they may have sold more units than us.' Unsurprisingly, the company declined to take part in the audit.



Sega also accused Sony of 'stealing' an idea – bundling three games with its PlayStation for exclusive distribution through Dixons. Previously, Dixons had only stocked PlayStations in 50 stores across the UK, but Sega's success with its triple game bundle obviously proved to be a strategy that could be adapted to Sony's console, too, which now comes with *Tekken*, *Jumping Flash* and *Ridge Racer* for £380.



The UK PlayStation market is a success in most retailers eyes. While Sega may claim supremacy, the reality is there are more PlayStations in players' homes than Saturns

In the US, the numbers are more significant but the story is the same. In the autumn of 1995, Sony was eager to publicise PlayStation's awesome early sales figures (100,000 sales in the first weekend it was available). Meanwhile Sega, whose surprise US Saturn launch in May was less than successful, kept quiet about

Who is it?

This puerile comedian, made famous by early eighties madcap sitcom, The Young Ones, has previously been involved in videogame advertising. He will now personally star in his first videogame – as the voice of the villain

Continued next page

Continued

it is...

Rik Mayall, also famous for his role in nineties madcap sitcom, Bottom, and the superb Filthy, Rich and Catflap in 1986. The game is Merit Studio's forthcoming *Bud Tucker in Double Trouble*. Rik also starred in the 1992 Nintendo SNES ads

numbers until after the winter holiday period. This led to a perception that the PlayStation was murdering Saturn, in terms of numbers of units sold.

According to SCEA, it sold 800,000 PlayStations by the end of 1995. Sega sold just half that number of Saturns. And according to TNPD, a generally respected US report, the Saturn went from having a 58% share of the 32bit hardware market in August, 1995, to having just a 12% stake in September (versus 83% for the PlayStation). By December, Saturn's share had increased slightly, while the PlayStation's share had decreased. But still, the year-end totals gave 27% of the 32bit market share to Saturn, and 62% to PlayStation, according to the US figures. (Incidentally, the 3DO Company sold a total of 1%, while Atari had sold, statistically, 0% of total units during this same period.)

In the 32bit realm, therefore, Sony appears to have enjoyed a



(Ex) president of SCEA, Marty Homlish, oversaw the US PlayStation push for just two months by which time it had 'sold' 800,000 units

commanding victory over Sega, especially since the PlayStation was only available in the last third of 1995. But this (approximate) two-to-one ratio is considerably less than the 'total market domination' hyped by the likes of Sony's former-boss **Marty Homlish**, who declared in an interview in **Edge**'s sister mag, Next Generation,'we believe we are outselling our competitors by a five-to-one ratio.'

And, throughout the start of 1996, the availability of exclusive titles for the Saturn, like *VF2*, and the systems' price parity has led to what is approximately a one-to-one selling ratio between Saturn and PlayStation (according to an informal survey of videogame retailers conducted by Next



Sony lost market share to Saturn in the UK and US after Christmas because of a shortage of must-have titles

Generation). Indeed, the surprising surge in Saturn sales during the last months of 1995 and the start of 1996 has actually caused many analysts to re-evaluate the Saturn's current status and its performance in 1995.

While Nintendo's **Howard Lincoln** (an admittedly biased source), estimates only 150,000 to 200,000 Saturns had been sold in the US at the end of 1995, against 500,000 PlayStations (a figure agreeing with the US data), **Ted Lannon** of Fairfield Research, quoted in the March issue of US trade paper Computer Entertainment News, claims the figures for Sony and Sega in North America are much closer. Lannon estimates the number of PlayStations sold to be 569,000, with the current Saturn figure at 474,000 – far closer than previous estimates, or the TNPD data, suggest.

So what does it all mean? First, it's obvious that not all the data concurs. Fairfield's research shows the same trends as the NPD Group's, but without definitive confirmation from the principal companies, there will always be differences in estimates.

More importantly, it indicates that Sega could be doing far better in the 32bit race than previously thought, and that a strong software surge through the latter half of 1996, combined with any slip-ups on Sony's part, could flip their relative positions quite rapidly. Throw in the new Saturn price drop and the 'promised' launch of Nintendo 64, and it is clear to see that the race for next generation dominance is far from over.

So why lie?

While both Sega and Sony provided sales figures throughout the winter holiday, both figures were 'sell-in' numbers (the number of systems sent to stores). What has not been released is the far more important 'sell-through' figure (the number of systems actually purchased by consumers). And discovering the actual numbers is extremely difficult.

Why? The only people who really know the sell-through numbers are the hardware companies themselves – and in the US they're not talking. First and foremost, no company wants to give its competition valuable information with which it could restructure its marketing campaign. Second, no company wants to admit it has missed its target sales figures (which are set bullishly high). Third, no one wants to set a precedent of being open with its numbers, in case it has to try and hide a downturn in the future. But most importantly, videogame hardware battles are often won or lost on the basis of perceived momentum. The decision made by a developer to support a platform is based on its perception of how successful the platform is going to be 18 months down the line. In turn, the decision to support the platform will have a positive affect on its likelihood of success. It's a chicken and egg situation that the industry unfortunately has to live with.

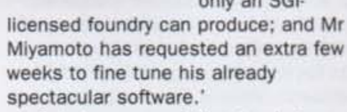
Super chips blamed for N64's **delay**

Nintendo concede their 64bit machine is having launch troubles



Following surmises to the effect in **E**31, Nintendo has confirmed another delay in its Nintendo 64 strategy, pushing the 64bit console's Japanese launch date back to 23 June.

In a joint statement issued by NoA, president **Minoru Arakawa** and chairman **Howard Lincoln** revealed the company's Japanese headquarters had made the decision. 'In Japan today, NCL announced they would begin pre-selling and advertising Nintendo 64 on April 21 with shipments to start on June 23. The reason for this slight delay is two-fold: there have been supply limitations on the chips because we are using state-of-the-art technology which only an SGI-licensed foundry can produce; and Mr Miyamoto has requested an extra few weeks to fine tune his already spectacular software.'





***Super Mario 64* and *Pilotwings 64* will spearhead the Japanese N64 launch**

Only too aware of the growing discontent among gamers across the globe, the statement added, 'Needless to say, we're thrilled about Nintendo 64. We've carefully followed the progress of the software, and there is no doubt in our minds that it will, quite simply, blow away the competition, starting at E³ in May.'

Nintendo also confirmed the three games which will appear at launch – *Super Mario 64*, *PilotWings 64* and, surprisingly, *Habu Nanakano no Saikyo Habu Shogi*. The latter title, produced by Japanese company Seta (whose previous games include the popular SNES racing games *F1 Exhaust Heat 1* and *2*), is a shogi (a Japanese variant of chess) simulation featuring Yoshihari Habu, a renowned shogi player in his homeland. There are no plans to release the game in the West, and its inclusion in the line-up hints at desperation on the part of Nintendo – it would surely have preferred to launch with a game featuring an established character – Kirby, for example – had one been ready.

Doubts over development delays have been strengthened by a newly formed relationship between Nintendo and The Nichimen Graphics Corporation of Japan. According to Japanese newspaper, Nihon Keizai Shimbum, the company has been drafted in to reduce development time by up to 50%, an achievement made possible by Nichimen's vast 3D experience (it has produced a wide array of powerful modelling tools). **Edge** understands Nichimen has dispatched three engineers to NCL's Kyoto-based HQ, where they will provide technical support to developers working on Nintendo 64 projects.



These rather ropey screenshots, taken from the internet, show Acclaim's *Turok: Dinosaur Hunter* for N64. The motion of the character is currently disappointing

In other N64 developments, Acclaim has released early shots from its *Turok: Dinosaur Hunter*, a game licensed from the American comic book of the same name. One of the first third party games to be announced for the system, it currently looks slightly rough, despite its lengthy gestation period.

What is it?

Sony recently supplied this long-running television show with a batch of PlayStations so that restless programme guests could play the likes of *Tekken* and *Total NBA* while waiting to perform to a gaggle of screaming teenagers

Titus denies N64 license

Following an internet posting claiming that Titus has signed up as a member of the Nintendo 64 Dream Team, the French software publisher has denied any involvement with the machine.

It was suggested that Titus – whose previous releases include numerous minor-scale 16bit console and computer titles – is preparing an N64 update of the old ST/Amiga driving game, *Crazy Cars*, and is also working on at least one other project, its intention being a full unveiling at E³ in May.

The motives behind Titus' denial are not yet clear, and Edge expects the company to follow up with an official line concerning the confusion.

Sega creates alternate reality

Sega's new seven-storey theme park has interactivity as its main thrust

it is...

Top of the Pops, BBC1's music show. Apparently, porky Take That has-been Robbie Williams drove around a *Ridge Racer* course backwards. No wonder BMG were so keen to keep hold of this natural and humorous entertainer

Billed as the world's largest 'futuractive' indoor theme park, SegaWorld, situated in London's Trocadero centre, is scheduled for an August opening.

The park, which cost £45m to develop, takes up seven floors of Piccadilly Circus's entertainment complex and will have a capacity of around 3,000 visitors at a time. The entry price has not yet been finalised, but Sega is talking about charging between £10 and £15 per person.

SegaWorld features six main rides dispersed over six themed zones – Sports Arena, Flight Deck, Race Track, The Carnival, Sega Kids and Combat Zone. The rides, which cost around $1 billion to research and develop, all have interactive elements which means, as Sega asserts, 'each visitor will have a totally unique experience and no two visits to the attraction will ever be the same.'

Two of the rides – *Beast in Darkness* and *Aqua Planet* – are totally unique to SegaWorld. The first is a kind of ghost train ride, but with unspecified interactive elements, the second is a 'motion based 3D undersea experience' which, apparently, is so realistic test riders held their breath thinking they had really been immersed in water.

On *Aqua Planet*, as with another of the six rides, *Space Mission*, visitors wear Mega Visor Displays, on to which a virtual reality image is projected. According to Sega, 'On a moving ride linked to the projected images, the visitor can interact with the images, feeling totally immersed in the surrounding.' Effectively this means that, when looking left, the MVD displays the scenery as such, as is the case when looking up. Furthermore, when participants look down, they will see their clothes transformed into a space suit or diving costume – depending, of course, on the ride they're in.

The last three rides are *Ghost Hunt* (a sit-in taxi ride where passengers can use laser guns to fire at ghosts on a 3D screen), Mad Bazooka (dodgems, but with each cart equipped with a ball-firing bazooka – scores are given on hits for and against) and Sega's AS1 Simulator. Various top-end Sega arcade machines will also be placed around each zone, but Sega are not keen to specify which.

Each visit to SegaWorld will apparently take around 4 hours, although visitors are welcome to stay longer. The layout is a kind of anti-clockwise spiral. To begin with, visitors are transported to the top floor via a 'rocket escalator' and then go down floor by floor. Not surprisingly, a Sega retail outlet will also be on location.

Sega hopes each ride's combination of motion simulation, virtual reality and 'the latest in computer graphics technology' will go toward attracting at least 1.75 million visitors in the first year of business. Furthermore, with an eye on longevity, the company stresses each ride will be updated on a regular basis and that one major attraction will be added every year.

For more information about SegaWorld, there is a web site at http://www.segaworld.com, which carries press releases and a small description of each ride. E



This CG rendered model shows the architectural design of SegaWorld, in all its full, garish, metallic glory







SegaWorld promises a mixture of all-round entertainment, from rides to arcade games









Although not confirmed, it is highly likely *Virtua Fighter 3* will be present in SegaWorld arcades

Data stream

Acorn losses '95: **£12.3m**
Virgin losses '95: 14.3m (a mere blip)
ICL '95 pre-tax losses: **£188.3m**
Cost to ITV for signing Live and Kicking 'star', Andi Peters: **£500,000**
Monthly circulation of Escort, 'Britains top adult entertainment magazine': **400,000**
Monthly cirulation of For Women: **400,000**
Amount of cigarettes sold every year: **5,500 billion**
Annual income of the 'Christ in the Desert' benedictine monastery in Santa Fe before 1995: **$48,000**
Annual income of the monastery now they have put their own site on the internet (http://www.technet.nm.org/pax.html): **$200,000**
Amount of kilocalories used up watching television: **93 per hour**
Amount used up while lying motionless in bed: **77 per hour**
According to Nikkei daily newspaper, Sega's share of games market: 1995: **32%** 1994: **12%**
Nintendo's share of games market: 1995: **33%** 1994: **75%**
Estimated amount that BBC Worldwide has made out of Enid Blyton's oft-controversial character, Noddy: **£14m**
Most terrible computer related pun to appear in the press this month: **'Sega doesn't want console-ation prize'** (Computer Retail News)
Size of SegaWorld, Trocadero: **110,000** square feet
Amount of London buses that would fit into that space: **735**
Amount of buses that pass through Picadilly Circus during rush hour each week day: **250**
Amount of visitors that go to the Trocadero each year: **16m**

New softs prolific at **PlayStation** show

Sony plays host to yet another dedicated software event



This year's PlayStation Expo, which showcased an impressive 229 games from 78 exhibitors, took place in Harumi in the centre of Tokyo.

The event's highlight was a private presentation – only 50 show attendees were invited, including **Edge** – of *EO*, the new game from *D* creators, Warp. Weighing in on four CDs, the title is an expansion on the *D* theme, with a number of beautifully conceived, prerendered sequences but also more graphics generated on the fly. Due to ship in the summer, *EO* already has Japanese journalists in a frenzy, but, despite the marked improvements over its predecessor, it's unlikely to generate the same levels of excitement when it arrives in the west.

Sony's naturally enormous presence at the show manifested in a huge booth separated into two parts, one demonstrating Sony-branded titles, the other debuting products developed outside of Japan under the new 'Yoge' label (including Brit games *Wipeout* and *Destruction Derby*).

Seemingly running short of ideas, Sony presented *Jumping Flash 2* and *Motor Toon GP 2*, both attracting a lot of attention despite their lack of originality. Sony's only original game of note was *Popolocrois*, another example of the growing band of RPGs to hit the PlayStation.

Sequels seemed the order of the day all round, in fact. Zoom showed an early version of *Zero Divide 2* (whose gameplay is very similar to the original, although its graphics, using realistic lighting effects, are noticeably improved), while Namco naturally unveiled *Tekken 2* and Genki presented the bizarrely titled *Beltogger 9*, a follow-up to the *Kileak The Blood* series. Continuing in the *Doom*-style template, its gameplay is significantly more accessible than the original's while its graphics retain *Kileak*'s dark feel but with a greater (and welcome) level of complexity.

A surprise Expo hit was *Digital Mission VFX* from Bandai. Although its crowd-drawing potential was no doubt bolstered by its origins (the game is based on popular anime series Macross), it proved an entertaining title in its own right.

SNK's PlayStation conversions of *Samurai Spirits* and *King Of Fighters '95* affirmed the company's beat 'em up inclinations, and fans of the theme were also treated to Capcom's *Vampire: Night Warriors*.



Warp's *EO* was one title heavily hyped at PS Expo. Takara's *Choro Q* (right)



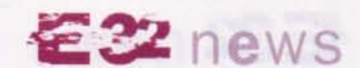
The Street Fighter creator's other big 32bit title, the excellent *Bio Hazard*, was demonstrated to the accompaniment of a troupe of zombies and proved ample vindication of the company's change of direction after countless one-on-one fighting games.

Among the countless small-fry developers clogging up the exhibitions two halls, other notables could be found in the form of Takara showing *Choro Q*, Banpresto (with the Virtual On-esque *Megatudo*) and Konami (whose PlayStation update of *Snatcher* proved popular).

PlayStation Expo 96 was a telling event, illustrating that the 32bit software scene is becoming as stifled with average titles as the 16bit equivalent was before it. It also demonstrated Sony's own problems: in the 16 months since the machine's launch, its in-house development facility has yet to bear one single triple-A grade product, leaving the likes of Namco to carry the flag for the format in the foreseeable future.



SCE's 'Yoge' label releases foreign PS software in Japan



Divorce **absolute** for **Sega** and **M2**

The 64bit partnership that never officially was, has ended

Clandestine talks between Sega and Matsushita concerning the latter's M2 technology have broken down.

Whispers of Sega's interest in the technology were circulating before Matsushita bought the rights from a beleaguered 3DO company last year for $100 million. However, when Matsushita took over, more focused rumours sprang up to the effect that the electronics giant was holding talks with Sega with a view to licensing M2 technology to them. Both companies have consistently denied rumours of a possible collaboration, but Sega took consignment of an M2 prototype for analysis early this year – giving weight to continued speculation.

There are two reasons why the covert talks collapsed. First of all, **Edge** has learned Sega wanted to be the sole M2 brand, which would have contravened Matsushita's hopes of setting up M2 as a standard with several other hardware companies on board. Secondly, although Sega technicians were reportedly impressed with M2, they were not sufficiently awestruck to warrant its immediate implementation.

Meanwhile, 3DO software development for M2 goes ahead at pace, despite some initial difficulties. A source close to the M2 project told **Edge**, 'To begin with, Studio 3DO developers found M2's workstation-like architecture tough to deal with in terms of maximising performance, etc.' However, it is known that one of the more able developers, working in conjunction with the internal graphics experts, has designed a low level 3D engine specifically for M2. **Edge**'s source was full of praise for this new engine, which is being used in an unnamed driving game. 'You've got to see it to believe it. It's as big a leap in graphics performance from the 32bit games as you could imagine. All I can say about →





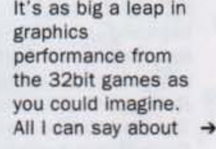
Now talks have broken down between Sega (AM3 development building, left) and Matsushita, what future is in store for 3DO's 64bit M2 technology (above)?

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The only running demo of M2's technology is this poor-quality *QuickTime* movie doing the rounds on the Internet. Although the image quality is dire, it is still possible to recognise some of M2's abilities – a video sequence is wrapped around a polygon, which bends and morphs into a torus. Unfortunately, the entire sequence fails to impress




This M2 demo features numerous polygons spinning around a central axis. But there just isn't anything there that hasn't been done before

→ M2 is that, for once, a machine may actually live up to its hype.'

3DO has also teamed up with Cirrus Logic, a leading manufacturer of advanced integrated circuits, to develop a 3D accelerator for the PC.

3DO are contributing their M2 3D engine and Cirrus Logic are bringing their video graphics controller technology to the project. The accelerator is designed to be compatible with 3D games written for Microsoft's *Direct 3D* and is expected to surface around Christmas.

The 3D graphics acceleration card market is becoming a little crowded of late, with Diamond Edge and NEC both producing competitive products. However, the 3DO/Cirrus effort will benefit greatly from the inclusion of 3DO's 64bit technology. M2's 3D engine is capable of processing 500,000 polys per second and the rendering engine generates more than 100 million pixels per second meaning a greater resolution than 640x480.



The UK's press mauls videogame culture once more. Edge reveals the truth...

Games create monsters (again)

'Sinister games corrupts kids,' screamed the front page of the Dublin Evening Herald this month. And what prompted this latest eructation of sanctimony, you ask? Why, the 'findings' of yet another 'top' psychologist, of course. Don Lydon, of the St John of God's Hospital in Dublin, believes, 'interactive computer games allow players to rape and murder in frighteningly realistic ways.' Exactly! So, er, what's the problem then, Don? The problem, tirelessly expounded over the course of several pages, is that 'there is no distinction between right and wrong. There is no moral code.' Well, he's right there. For only a few columns away in the very same newspaper is a full-page competition to win copies of *Loaded*, promising 'a massive bloodbath' of 'mayhem and gore galore.' Hmm. 'Hypocrisy,' wrote Milton, 'is the only evil that walks invisible except to God alone.'

Source: Dublin Evening Herald

Japanese standards collapse

The Japanese, whose unique sense of humour has produced delights such as Rape Man comics and karaoke, have been thrilling to a computer game based on a recent tunnel collapse in Hokkaido that killed 20 people. The game, which appears to involve planting dynamite, was meant 'to criticise the slow rescue effort,' it seems. There are currently no plans for console conversions.

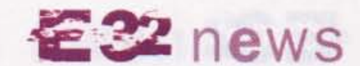
Source: Wolverhampton Express 21/2/96

Matsushita signs Konami

Konami has signed a deal with Matsushita to develop coin-ops using its M2 technology. The first game to use a custom version of the chipset is believed to be a beat 'em up, due to appear later this year

With plans to ship between 5,000 and 10,000 units per game to arcade operators across the globe, Konami ambitiously expects its annual profits to expand by at least $20 million as a result of adopting the relatively low-cost board.

Capcom is also rumoured to have had talks with Matsushita as the Japanese giant prepares its 64bit console for late '96 launch in Japan.



Apple reveals all at CeBIT 96

A laptop phone steals the show at Hanover's computer expo

CeBit, which took place in Hanover between 14 and 20 March, is the most significant information technology showcase outside the US. Its 26 aircraft hangar-sized halls usually offer first public sightings of a veritable host of new computers, gadgets and consumer electronics devices.

This year, the undoubted star of the show was, believe it or not, a mobile phone from Finland. But Nokia's 9000 Communicator, scheduled to start shipping 'at 12pm precisely on 15 August', is no ordinary mobile phone. Slightly – but only slightly – fatter and larger than the average mobile, it is split lengthways and opens out into a clamshell-style handheld computer.

The computer part of the Communicator runs a version of GeoWorks, the handheld PC operating system and uses a PC-style Intel microprocessor. The phone part will operate over GSM and PCN (such as Orange) digital networks. So, Communicator owners will be able to open up their mobile phones, touch a button and instantly surf the World Wide Web, send and receive faxes and emails, and have instant access to their appointments and contacts databases. Pricing is likely to be steep – Nokia's RRP translates to roughly £1,500, although mobile phone RRPs rarely bear any relationship to street prices (your £4.99 mobile probably has an RRP of £200 or thereabouts). On the phone side, the Communicator has some notable gimmicks, too. A built in microphone and speaker mean it can be used hands-free. And if you aren't happy with its ringing tone, it has a program which lets you key in the musical notation for your very own composition.

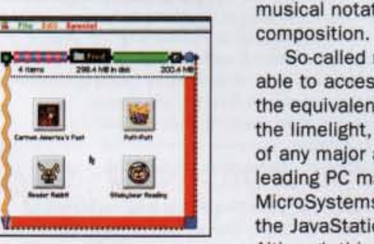
So-called network computers (NCs), able to access the internet but costing the equivalent of $500, also hugged the limelight, in the surprising absence of any major announcements by the leading PC manufacturers. Sun MicroSystems demonstrated its NC, the JavaStation 1, behind closed doors. Although this is aimed at the corporate market, at least it gives the NC lobby something tangible with which to escalate the PC versus NC debate. Apple again showed the Pippin-based Bandai Atmark and dropped hints that although they won't be making a Pippin-based NC, they might market the Bandai machine. Apple also intimated that announcements of Pippin-based machines from other far eastern manufacturers will be made at this year's E³ show.

Apple had a busy CeBit, despite being in financial trouble. It demonstrated a developer-only version of *Copland* (working title), the operating system set to take over from the *Mac OS* at the end of this year (see screenshots – note these contain many elements of Apple's current system, *System 7.5* and give just the merest →



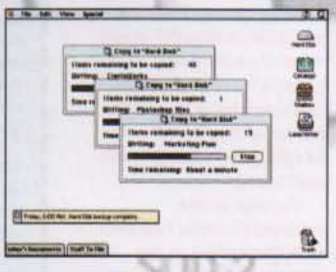


Essentially a PC show, CeBit 96 had little Intel developments to offer. More impressive was Nokia's 'laptop phone' and Apple developments



Apple's new OS will be fully 'customisable' (corporate look, top; kids look, above)





***Copland*, the working title for Apple's *System 7.5* replacement, boasts a new look, full multi-tasking and hundreds of 'top secret' additions**



Despite being little in the way of a PC showcase, CeBit still managed to draw consumers and exhibitors from all walks of computing life

Jag's price plummets

Atari have reduced the price of the Jaguar to $49 at selected retail outlets in the US. The endangered company claims this is a temporary measure to boost the system's user base, but others suggest it is a thinly-disguised attempt to sell off remaining stock.

Expect to see Jaguar consoles turning up in Cornflake packets and Kinder Surprise eggs over the coming months.

→ hint of what *Copland* will look like). As expected, all existing Mac software should run under *Copland* with no problems at all, although *Copland* programs will not be compatible with *System 7.5*.

Copland will be a 32bit (rumours circulate that perhaps it may even stretch to 64 bits) multi-threaded operating system, with protected memory (features Microsoft's *Windows 95* has been celebrating), enabling the Mac to multi-task across all system operations (currently, the *Mac OS* has limited multi-tasking capabilities, such as rendering an image in the background while running a word processor in the foreground). *Copland* should also be the first operating system to support so-called Intelligent Assistants, which could perform complex computing tasks without the need for any user involvement, such as filtering out junk emails, or automatically searching the internet for specific information.

To get a flavour of what this will be like – at least where the internet is concerned – Mac users should look out for an Apple software suite called *CyberDog*, due to be released this summer, and available for free. *CyberDog* is an internet access package which makes use of *OpenDoc*, the object embedding technology developed by Apple, IBM and others. This allows you to embed easily downloadable documents, animations, and so on, in web pages, and will allow programmers to put the first Intelligent Assistants on the net. **Edge** looks forward to this immensely. It will be refreshing to see at least some form of intelligence on the net. **E**

Datebook

May

Richard William's Animation Master Class – 10 May to 12 May, National Film Theatre, South Bank London. A three day intensive course in animation techniques for professionals in the field. Recently attended by the makers of Toy Story. Contact tel and fax: **0800 967 737** (freephone)

The Electronics Entertainment Expo (aka **E³**) –10 May to 18 May, LA Convention Centre. The main games industry event of the year. All the biggest games companies show all their newest games. This show is a must. Contact tel: **001 415 4300** or **001 800 315 1133**, email: **http://www.mha.com/e3/**

Orlando Consumer Electronics Show (**CES**) – 23 May to 25 May, Orange County Convention Centre, Orlando. Electronic gadgets, new systems, etc. Contact fax: **001 703 907 7690**

The Home PC Show – 30 May to 2 June, Earls Court 2, London. Intended as 'a jargon free computer event for consumers', this translates to 'a show for technophobic parents who fear their children will be social outcasts unless they have a P90'. Hence, 'internet tutorials' and 'advice theatres'. Contact Real Time Events, tel: **0181 849 6200**, fax: **0181 849 6264**

June

Scottish IT Show – 25 June to 27 June, Hilton International Hotel, Glasgow, Scotland. Contact tel: **01232 826321**, fax: **01232 826084**

Spring VR World '96 – June 11 to June 14, San Jose, California, USA. Contact tel: **001 800 632 5537,** fax: **001 203 226 6976**, email: **lwhome@mecklemedia.com**

Centenary Degree Show – 27 June to 7 July, Royal College of Art, Darwin Building, Kensington Gore, London. Art students show off their work at two separate events – the one listed includes computer-related design and animation. Contact Royal College of Art , tel: **0171 584 5020**, fax: **0171 584 8217**

Show organisers: if your show isn't listed here, it's only because you haven't told **Edge** about it. Do so on 01225 442244, or fax us on 01225 338236, or send details to **Datebook, Edge, 30 Monmouth Street, Bath, Avon BA1 2BW**

Virtual surfer

VRML is the new darling of the net, marching over the flat 2D web sites of old and elevating modern pages to new heights of exploration

At the moment, most net pages are created using HTML – a web language which can display text and still images, and most programs are downloaded to the computer via FTP. Unlike most other areas of computer technology these days, the net is essentially a 2D experience. But that's about to change.

VRML – virtual reality modelling language – is a cross-platform programming library/service which can be employed to create fully interactive 3D graphic environments for use over the internet. Pages developed using VRML will be able to present fully immersive 3D domains rather than just text pages with a few pictures. Home pages will become like homes – when you access the URL, you will be able to wander through a 3D world where touching objects can be used to link to other sites.

Mark Pesce's ideas for VRML (see Origins boxout) were quickly snapped up by SGI who developed their 1.0 browser and graphic demos last year. Now there are dozens of







These instructions for constructing an office desk are some of the more bizarre uses of VRML . After being provided with the component parts and 'paper' guidelines, users can fit together all the pieces by following the steps

sites on the net with VRML material which can be accessed if you have an appropriate browser (see Info side column). On SGI's *Webspace* site, for example, there is a selection of virtual worlds to fly through as well as some more surreal additions – the virtual desk assembly page is based on those flat-packed, mess-it-up-yourself desks available from MFI and other DIY stores. 'It's a means of combining flat text instructions with a 3D model representation of what the end product should look like,' says **Andrew Spybey** at SGI, with a considerable amount of mirth.

Since SGI's adoption of the technology back in May 1995, things have become complicated, as things often do on the internet. In February, the group behind VRML, VAG (VRML Architecture Group) asked for proposals for a VRML 2.0 standard, and several companies put their own programmes forward. SGI and Sony have *Moving Worlds*, Apple has *Out of this World* and Sun is contributing *Holoweb* to the proliferation. Luckily movement toward the VRML 2.0 standard has brought the companies together.

As **Mike Beaven**, editor of VR News says, 'Basically the techies involved in each company got together on the internet and looked objectively and professionally at each other's proposals – they then exchanged information in a totally non-selfish way. In a sense they've brought about a merger of talent which couldn't have happened if it had →

Info...

VRML Architecture Group – http://vag.vrml.org – for information about VRML 2 standards and other links.

http://www.hitl.washington.edu/projects/knowledge_base/vrm.html – a huge list of resources, sites and FAQs, relating to VRML



Silicon Graphics' kitchen (top) and patio (above). Users select components and build their own area using the web browser. Once complete, they are able to explore their virtual world until satisfied

→ been left to corporate lawyers and business men.' Consequently, VRML 2.0 could represent the work of several companies contributing in unison to a single standard.

However, like the child at the party who sits alone in the corner and plays with his own toys, Microsoft is characteristically having none of this sharing business. Its own proposal, *Active VRML*, is unlikely to benefit from the cross-pollination of ideas that has formed the basis of VRML 2.0. At Microsoft, the corporate heads, and not the techies, are in control. As a result, there's likely to be two standards in the coming year.

At the moment it's hard to see what all the fuss is about – VRML demos are rather limited, achingly slow to download and reasonably complicated to install. However, net visionaries foresee great things for the standard – one day, no doubt, when the speed of accessing graphics-heavy data across the net is improved, the internet's potential for creating sophisticated online 3D worlds will become a realistic proposition.

As for VRML's other implications for the web, God knows what will happen when the makers of

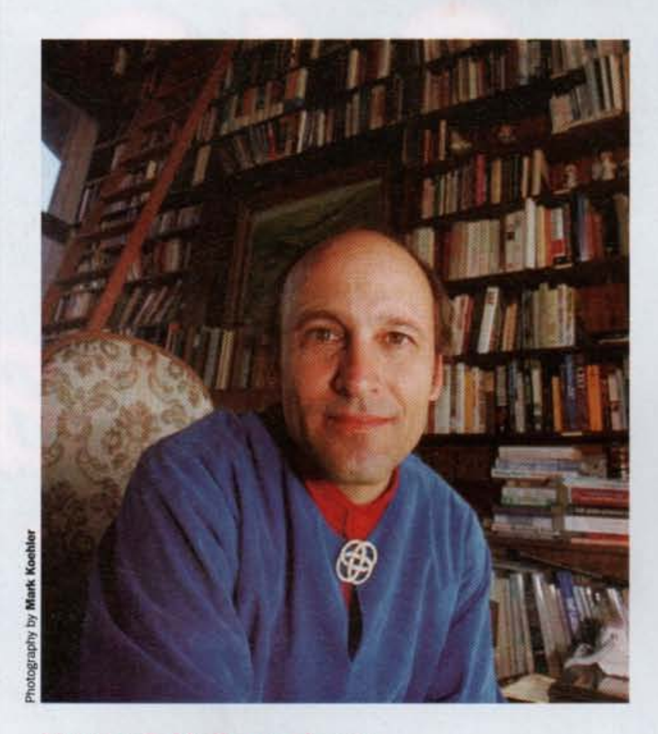
Origins...

VRML was the brain child of **Mark Pesce**, an internet technician who had been working on HTML for some time before coming up with the idea for a 3D upgrade. He presented his concepts for VRML to **Tim Berners Lee**, the man some regard as the godfather of the internet, who then suggested Mark should present them at the next Web Conference. The subsequent paper attracted the attention of SGI who offered up their software for the project.

On March 30, 1995, SGI, in collaboration with Template Software and with the support of 17 other computer companies, announced the development of the first VRML 1.0 browser – ***Webspace Navigator.***

The way games ought to be

Hi-octane games theory by Chris Crawford



Photography by Mark Koehler

Number 3: **Hollywood** envy

The games industry's perennial obsession with Hollywood doesn't just result in duff games – it could stunt its growth forever

For those of you who haven't caught up on your pop-psychology, 'penis envy' is a concept introduced by Sigmund Freud, and like many of Freud's notions, has now been dismissed as politically incorrect.

His notion was that the female psyche is hobbled by 'penis envy,' which develops at an early age when little girls, playing their little naked games with little boys, realise little boys have penises and little girls do not. Stunned by the realisation that men possess something of obviously great value (ahem) that they lack, women spend the rest of their lives trying to compensate for this deficiency.

Given the culture of the Victorian era in which Freud operated, we are tempted to suggest the terms 'career envy', 'job envy', 'status envy', or 'freedom envy' might have been more appropriate (to be fair, Freud did acknowledge these factors). Still, the concept has utility today, if not in its original form, as a metaphor for an irrational desire to possess something one can never possess, because it is alien to one's nature.

With this in mind, I propose the term, 'Hollywood envy', to describe an attitude that dominates the thinking of many in the games industry. We seem determined to mould ourselves in the Hollywood cast. The idea is an old one – the first truly public efforts in this direction were made by Electronic Arts, who introduced the term 'producer' to the industry (where have you heard that term before?). Trip Hawkins made much of the Hollywood connection, pushing such terms as 'The New Hollywood'. It was heady stuff ten years ago, and it fired the imaginations of many. Ever since then, Hollywood envy has played a large role in our thinking.

Consider, for example, the role of a game's title screen. In the early days, the title screen served several purposes: to provide a copyright notice, to cover up long initialisation times, and possibly to provide a primitive game demo for in-store use. Over the years, the title screen has evolved into the title sequence, and is now a much more involved production. It lists the credits of all those who contributed to the project, all of which have grown enormously.

little girls, playing their little naked games with little boys, realise little boys have penises and little girls do not

Now we all know that most games are put together by a small team of perhaps a dozen people, often less, yet we see credit lists that drag on and on and list scores of names. Who are all these people? If you study the credits carefully, you'll figure out that they've listed just about everybody in the company. Now why would they do that?

The answer, I think, is that a long credit list suggests something like a movie. It's almost like a personal resumé that drags on for five pages, listing every single accomplishment of the author. Sure, it's all true, but after a while you get the feeling that the author is trying to overwhelm you with the amount of his achievements. In practical terms, do we really need to list every single person who had anything to do with the game? Aren't these long credit lists just an example of Hollywood envy?

Here's another example: the desire for an awards ceremony. For years, many industry people have been pushing for an awards ceremony 'just like the Academy Awards'. There's nothing intrinsically wrong with this, but why model it on the Academy Awards? Why not the Nobel Prize or the Pulitzer Prize?

Why do we model ourselves on Hollywood? I suspect part of it is an infantile envy of Hollywood's glamour. Oh, those Hollywood stars with all their pleasures. Wouldn't we like to be just like them? This is an ego trip.

Let's face it, we will never have Hollywood's glamour. You will never see Sid Meier in a tuxedo, surrounded by flashing cameras, with Julia Roberts dripping off his arm.

But one might ask, 'What's wrong with Hollywood envy? If we

want to indulge ourselves in a little harmless fantasy, what damage does it do?' I see a number of undesirable side effects arising from it – one of the sillier aspects is the undue attention we give to film techniques. Think how much money the industry has spent on full motion video. And what do we get for it? Video clips that never quite fit into the game. 'We interrupt this game to bring you a video clip – wasn't that impressive?' I have yet to see one game in which the video was truly intrinsic to the game architecture.

Then there's the brouhaha about using widely known 'name' actors. We've seen lots of products with name actors in the last year or two. What, precisely, do these actors bring to the party? The value of an actor lies in his or her ability to communicate the finer shades of human emotion. What fine shades of human emotion exist in our games? If all you're doing is running around blowing things up, who cares about the feelings of the people involved?

There's a fundamental mismatch here – it's like playing Mozart at a bowling alley. Our games aren't about the emotional aspects of the human condition – they're emotionally flat exercises in puzzle-solving and hand-eye coordination, so why do we need great acting talent to enliven such puerile exercises? Hollywood envy.

The most serious downside of Hollywood envy, however, is the way it blocks us from finding our true selves. When I was a teenager, I became enamoured of Mr Spock from Star Trek. Like any teenager, I hadn't the faintest idea of who I really was, but I was groping about, and I liked what I saw in that character. So I tried on the role of Spock, even shaving my eyebrows at one point. I can now laugh at my excesses as a teenager, and I can even see the value of the experiment. When you're young and floundering about, trying to find your identity, it's a good thing to try out other personas, to put them on and wear them like a hat or a costume, to see how they fit.

But the emulation phase must pass before we can truly find our own identities. I was not Mr Spock, and never will be. Yes, it was useful to put the hat on my head and fantasise, but only as a transitional phase. The time came when I had to take off the hat and ask who I really was. Had I persisted in the Spock-identification fantasy, I would never have matured to the point of asking more serious questions about myself. I would have spent all these years playing a role that truly didn't fit, spinning my wheels trying to be something that I am not.

Thus, emulating other identities is a necessary part of finding one's own identity, but it must be put aside as part of the process of maturation. And the games industry is not doing that. We've been stuck for ten years with this Hollywood obsession, and it's starting to stunt our growth. When I ran around as a teenager with shaved eyebrows and mock-Spock attire, I looked silly but exuberant – if I were still doing that today, in my forties, people would shake their heads sadly at my arrested development.

The time has come for us to outgrow Hollywood envy. The games industry is not Hollywood, and it never will be. We are not 'better than' Hollywood, nor 'worse than' Hollywood – we are ourselves, something different and something special. If the classic Hollywood image is the star emerging from the limousine with the starlet on his arm and the flashbulbs popping, then what is wrong with the image from the last evening of Computer Games Development Conference, at the Microsoft party, of hundreds of frisbees floating through the air simultaneously?

Sid Meier makes a pathetic Arnold Schwarzenegger, but he makes a magnificent Sid Meier. E



Photography: Jude Edginton

Tim Wright is the man behind the music in Psygnosis' *Wipeout*. Apart from the contributions from The Chemical Brothers, Leftfield and Orbital, *Wipeout*'s tracks were composed by 28-year-old Wright, who works under the pseudonym Cold Storage. The result is a concoction of catchy, gamesy techno-lite.

Having composed music for over 30 Psygnosis games (including *Agony*, *Shadow of the Beast II* & *III*, and *Krazy Ivan*), *Wipeout*'s eight tracks took just two weeks to write – something he attributes to an 'amusing deadline which clocked up some serious hourage'. However, it seems to have paid off. In America, where the licensed tracks were dropped, people enquired where they could buy Cold Storage's latest album, while in Vienna, Austria, the tracks were pressed onto vinyl to play in clubs.

'Most people I've spoken to preferred my stuff to the licensed tracks, which was nice,' Tim humbly admits. Despite its popularity, though, no Cold Storage tracks appeared on the *Wipeout* album, Sony preferring a more commercial-sounding compilation. With his own album in the works ('updated retro eighties stuff '), Wright confesses to a more eclectic taste: 'The Chemical Brothers are en-vogue and I've got a soft spot for Orbital – they always go off at weird musical tangents. I can listen to them time and again without getting bored.'

Continued page 23

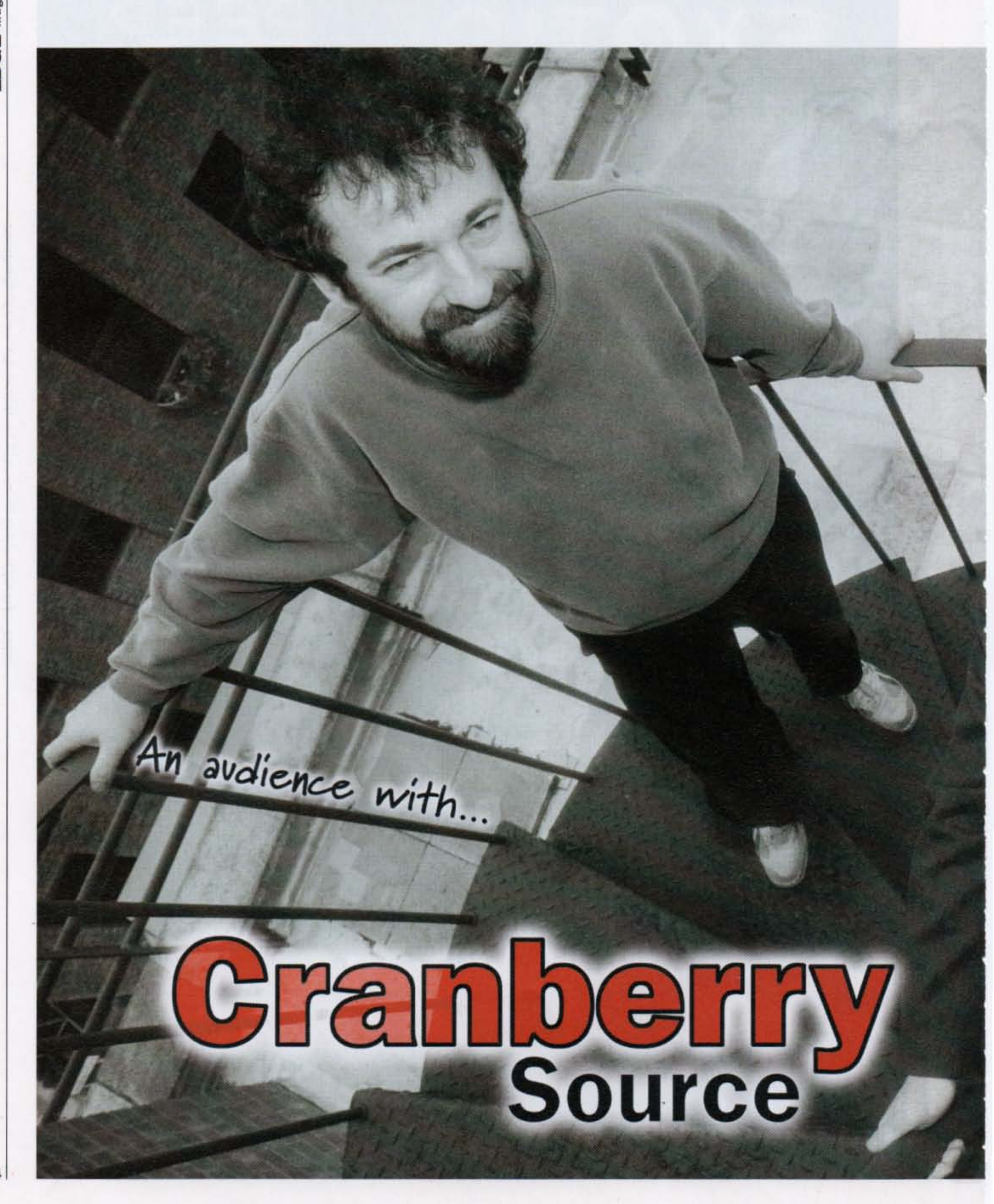


Seen here in his native Soho habitat, Geoff Glendenning, Sony Computer Entertainment UK's marketing manager, is a personable, fast-talking 30-year-old with his feet firmly rooted in contemporary youth culture.

Made redundant from Commodore when it started to collapse, Glendenning spent six months on the advertising side for Acclaim, before being head-hunted by Sony in November 1994. Working his way swiftly up to marketing manager, he found himself spearheading Sony's first move into the games market, armed with a large marketing budget and a company with a certain amount of street cred thanks to its musical arm. 'I wanted people to see the PlayStation not as a toy but as an accessory. To get into the massmarket, you don't need to target 15 to 18-year-olds, as they're influenced by the 24-year-olds. So I got all the alternative press – the likes of Herb Garden, Mixmag and DJ – to write about the PlayStation. I've been clubbing since the late eighties, and all my friends are into videogames, so I knew I could get a machine into that crowd.

Glendenning's plan worked. Sega's Saturn, technology similar to Sony's, was comprehensively outsold, reducing Sega to whingeing about the allegedly vast sums Sony spent on promotion. 'We did have a limited budget, about the same as Sega,' says Glendenning. 'We just spent it better.' Glendenning's work with the PlayStation, however, is not over. When **Edge** caught up with him, he was about to fly to the British Snowboarding Championships in Meribel, sponsored by, natch, Sony. An ideal excuse to indulge in his favourite hobby: 'Blagging. It's more of an addiction, really. I'll be the most overdressed snowboarder there.' Not that he's ever stepped onto a snowboard before, he admits, 'I'm always the first person to make an arsehole of myself.'

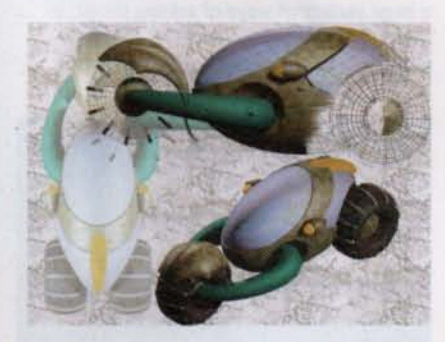
Photography: Jude Edginton


An audience with...
Cranberry Source

Take two gaming veterans, a handful of PCs and a sprinkling of cash from Philips. Simmer for several months... and avoid any reference to turkeys

In an age when games players must increasingly subsist on a thin gruel of anonymous genre clones delivered by faceless corporate monoliths, the palette cries out for something new. In 1995, industry veterans John Cook and Jon Ritman reckoned they had the recipe to revive those jaded taste-buds and founded their own company, Cranberry Source, with the explicit intention of 'putting the gameplay back into games'. On paper, at any rate, they certainly seem to have the ingredients for success. Cook, whose company, BAD Management, has represented such glamourous clients as Bullfrog and Sensible Software, provides the business and marketing acumen, while Ritman, one of the UK's most venerated programmers, with a string of eighties classics to his name (including side-on football sim, *Matchday*, and isometric 3D action adventurer, *Head Over Heels*, both for the Spectrum), designs the products they hope will fly the flag for

Continued next page





The conceptual art from *QAD* illustrates Cranberry Source's desire to mutate traditional vehicle designs into organic craft

Continued

independent developers throughout the known universe.

With Philips Media having signed a worldwide deal for Cranberry's first three games, the company is expanding rapidly, employing 27 staff, with offices in London and Newcastle. Development on the three initial products is charging ahead, but by far the most advanced is *QAD – Quintessential Art of Destruction*, due for release this Autumn.

Edge Tell us about *QAD*. In today's world of derivative games what makes it special?

JR Obviously we've got excellent technology. It's a blow-away technology to really make people sit up and look at it. The 'sprouts' [see screen grabs, below], or 3D sprites, are a voxel-type of system which can be viewed from any direction. To get this level of detail, at this resolution, using polygons would be impossible. As for the landscape, the *QAD* engine, or the 'beyond' engine, is a fractal system. What you're seeing here is the equivalent of twenty gigabytes of data squeezed into 48K. We can run the landscape engine with five hundred sprouts milling about, all at 20 frames a second on a DX2-66.

Edge Sounds impressive, but what kind of shape will the game take?

JR In the gameplay I try to provide a lot of variety, rather than set precisely what you have to do. If you make enough complexity available in a game, people, in effect, will create their own gameplay because there's a large variety of ways of solving things. In *QAD*, the basic principle will be that you have to rescue/capture hostages that are wandering about the landscape, and to do that you have a craft in which to fly around, with a pod to collect, and return to safety, the hostages. There are a few other options available (laughs). You can always kill them.

Edge What stands between you and the hostages?



JR Lots of aliens of one form or another. I try not to set precise scenarios because I think it restricts artists far too much. You can say 'I want a Dungeons & Dragons scenario', but then the artist is tied into barrels and swords and candlesticks. That's okay, but I'd rather say, 'I want you to drop something of this and that scale into that space' and see what happens. As a result of that, journalists say, 'these people have bizarre minds.'

Edge Surely that would be meant only as the sincerest form of flattery.

JC Thank you. When we kicked off *QAD* we talked about the direction in which the scenario was going, and Jon said, 'the scenario is irrelevant to the quality of a game. It's just the crap you put on the back of the box.' I mean, obviously for certain genre games the story's important but that's not what we're interested in. We don't want the scenario to invent the game but the game to invent the scenario. In *QAD* each level will bring a new scenario generated by the computer using a programme of ours called ENID – the Engine of Narrative Invention and Destruction.

Edge Give us an example of an ENID scenario, then?

JR (Laughs) Find the British people and take them shopping. Then contact your local bishop.



JC Obviously, we're still in the early stages of getting ENID to write acceptable scenarios. We don't know how they'll translate into German yet.

Edge You said you wanted the game to invent the scenario. To what extent does the technology invent the game? Which comes first?

JR You always have to push the edge of technology now. You can't put out something that looks like five years ago or people will just laugh at you. Until you've got it you don't know what the capabilities are and you can't plan the game in detail. If you're an artist and you want to paint a picture you've got to know what paints are available before you start.

Edge There's a few 3D engines vying for the podium at the moment. How do you think yours rates?

JR I think we've currently got the best landscape technology. And the sprouts are way ahead of what anyone else is doing.

JC Having said that, no amount of whiz-bang technology will make a good game. It can be enabling, though.

JR Just look at the Nintendo 64. By adding some new functions to the hand controller Nintendo allowed for a whole new range of games you can bring out. It's just another tool but it's a really good one.

Edge Do you see the new consoles as being enabling technology?

JC Not compared to the PC. The best games machine you can buy at the moment is a 160MHz Pentium with 60Mb of RAM. Now that's an incredible games machine. PlayStation and Saturn are a bloody good bang for the buck but how can you compete with lots of MIPS and memory?

JR With the PlayStation in particular, it's dedicated to performing polygon operations and very good it is at that, but there are other options. There's not a polygon in sight in *QAD* so conversion to









Cranberry Source's *QAD* employs its sprout technology, enabling 3D sprites to be viewed from any distance at any angle. 'It'll really make people sit up and look at it,' says Jon Ritman

the PlayStation presents a little bit of a barrier, to be honest. It's the same thing when you look back at the early consoles. Just look at the Game Boy games. So many of them were sideways scrolling and sprite games. Why? Because that's what the technology provided for and nothing else. At least with the PC you just get pure processing power and you can make it do whatever you want.

Edge It's ironic that, given the PlayStation is pretty much dedicated to 3D, so much of the exciting development in 3D is still originating on the PC.

JR The problem with the PlayStation is that there's not much chance of writing substantially better routines for it than the person down the road. You can't overcome the limitations of the machine. Which you can on the PC.

Edge Does the comparatively open architecture of the PC allow for more original games? What do you think about the current state of game design?

JC I'm pleased with the groundswell that started last year, of which I hope we were a part. I think there is a growing cynicism with FMV coffee table software. People buy games to play games, not to watch someone being a frustrated movie director. One of the worst things that happened during the late eighties and nineties, during the huge expansion of the business, was 'interactive entertainment'. You had these big companies coming into it with big company speak and they couldn't say 'we've got a games division', it had to be 'interactive entertainment'. That's so far removed from the visceral feeling you should get in front of a keyboard or joystick. It did a lot of damage.

Edge So you're saying just the words 'interactive entertainment' themselves perverted the course of game design?

JC Absolutely, yes. Proper interactivity will happen. You will have a million people playing *Doom* on a model the size of a continent. But it's in the future. There are too many people peddling the future. You want to go into the shop and buy something that makes you sweat now.

Edge Sweat's a rare commodity in games nowadays.

JC To get inside someone's head like that is tricky. Which is why virtual reality is attractive. It's dead easy to frighten someone in VR. You just put someone behind you and go 'Boo!' very loudly. It's very difficult to close the distance between the player and a monitor, though. Which is one of the intangible things Jon can do. Fun closes the distance. Fun is the crucial aspect of a game. Games are not just to pass the time until you die. If games aren't fun we've failed.



Edge Is the rising cost of game development an impediment to fun games?

JC It creates a few problems. Especially if you're entering a technology race, an element of that which certainly exists currently. You need to get the product out there as quickly as is compatible while still making a good game. After two years of development you might still be happy with the game but the technology has moved on. In terms of manpower and tools it's very expensive to get it all done in time.

Edge Which inhibits the sort of risks, in terms of content, a small developer may be willing to make. If you've had to spend six figures to bring a game to market you've got to be pretty sure it's going to sell, meaning you create whatever's in vogue, ie another fighting game, another driving game etc.

The scenario is irrelevant to the quality of a game. It's just the crap you put on the back of the box

JR That's right. And the big companies make the mistake of relying on market research which, when it comes to developing new areas, is faulty. You're asking kids whether they'd like something they've never seen. And they, naturally enough, have no idea.

JC And if you're a big company you get a warm cosy feeling to be able to look at the figures and say 'sixty three per cent of our target market say they would like this fighting game'. So if it bombs then, hey, no-one gets fired, it's all blamed on market research.

Edge It must be difficult to forge the balance between commercialism and originality, therefore.

JC Gameplay will always sell. And that's what we've got…






***Quintessential Art of Destruction*'s sprouts, extracted from their natural habitat (from left to right) a donut-shaped splint, two spaceships, and a giant wasp**

Rave Racer

Thanks to VideoLogic's PowerVR accelerator and Namco, it may be time for the PC to enter the realm of fast 3D graphics

Namco's conversion of coin-op hit, *Rave Racer*, could redefine PC graphics



The PowerVR's TSP technology has allowed for some beautifully texture-mapped locales to be included in the *Rave Racer* conversion. It's a far cry from the blocky, pixel mosaic PC users have come to expect from 3D games

***Rave Racer* makes full use of PowerVR's revolutionary texture and shading processor**

Format:	**PC (plus PowerVR)**
Publisher:	**Namco**
Developer:	**In-house**
Release date:	**May**
Origin:	**Japan**

A few months ago, the prospect of a PC *Rave Racer* conversion was almost unimaginable – at least a fast, visually impressive conversion. *Ridge Racer* would have been difficult enough, as *Screamer* with its limited frame rate and sluggish controls illustrated. But *Rave Racer*, as a sequel to Namco's seminal racing title (*Ridge Racer Revolution* was more of an update), presents an additional three tracks and improved hi-res textures – seemingly putting it completely out of reach for PC developers.

Now, however, the PowerVR chipset, developed by VideoLogic and exploited in conjunction with NEC and Namco (see **E**31), appears to have made a decent port possible. Indeed, if the early demo **Edge** has seen is truly indicative of a complete version, *Rave Racer* will be incredible.

Visually, it's clearly ahead of anything else on the PC. *Rave Racer* makes full use of PowerVR's



The PC *Rave Racer* conversion remains faithful to the coin-op by including all the camera angles from the original's replay mode



The highly-derivative tunnel sections, familiar to *Ridge Racer* devotees, look particularly impressive – yet they are far from complete. PowerVR's new lighting techniques are still to be implemented. By using these specialised techniques, small, shaded polygons are no longer needed

revolutionary texture and shading processor (especially its anti-aliasing abilities), to present some beautifully detailed cityscapes and sleek, smoothly-drawn cars. To exhibit just how much of a leap the chip represents, VideoLogic claims *Rave Racer* is handling four times the graphic work of PlayStation *Ridge Racer*. This is more than feasible considering the lack of blocky pixellation, common to PC 3D games that usually have to run in 320x200 to produce anything reasonably swift.

The demo is almost as impressive for what isn't in it, as what is. Namco's PC division, which is converting the game to the chipset, has not had time to draft some of the chip's more complex graphical tricks into the title. For example, *Rave Racer* doesn't yet implement PowerVR's custom lighting techniques, which would do away with the need for small, memory-consuming polygons in spotlight effects.

Thankfully, the impressively intricate visuals do not compromise the speed of the game. The *Rave Racer* demo is running at 30fps, and that's in hi-res 640x480 – making for a much more fluid ride than, say, *Screamer* could manage, without the usual loss in graphical quality. But will this frame rate slow down when the game nears completion? Not according to VideoLogic, which ascertains the complete version will fun at 30fps on a Pentium 133.

As for the accuracy of the conversion, few compromises will need to be made when porting from the arcade machine to the PC. Apparently, with the exception of the steering equipment, PowerVR provides most of the capabilities of the arcade system, with the exception of raw power, of course. In this light, the fact Namco took just two weeks to transfer data from the arcade machine, becomes much more understandable.

Of course, the only drawback to all this is that a top-end PC will be required to really bring out the advantages of the chip, and therefore the *Rave Racer* conversion. VideoLogic's technology may be relatively cheap, but if it needs at least a P160 to be content, it will still be out of the reach of most potential users. Nevertheless, *Rave Racer* presents an important step forward in the global mission to turn PCs into 3D-capable games machines. It will also be an extraordinary game. Which is, of course, more important. E



The early PC *Rave Racer* demo that Edge played did slow down noticeably when the camera switched to a view behind the car



Tracks are often long and straight, exhibiting the Power VR chip's great distance handling

Quake

From *Wolfenstein* to *Doom 2*, id have developed a genre that has both engrossed gamers and enraged parents. *Quake* represents the next onslaught from the best minds in the business

Format:	**PC**
Publisher:	**GT Interactive**
Developer:	**id**
Release date:	**TBA**
Origin:	**US**







***Quake* promises the usual dosage of shocking, occult imagery (left), traps and puzzles (floating platform, top), and, more importantly, utterly gory carnage**

When the new hospital PC was delivered in a recent episode of hit TV drama, ER, what was the first thing to be installed on the hard drive? Medical records? Drugs information? No – *Doom*.

This entry into mainstream culture, equal to a thousand rave reviews in the gaming press, is testament to the legendary status of id's seminal first-person carnage fest. Although *Doom 2* offered different maps and a few new creatures, it was with the announcement of *Quake* that id promised to really shake up the genre. After a wait that has had the PC press quivering with excitement, a playable test of *Quake* has finally been released. The death match version currently doing the rounds, courtesy of the internet, doesn't quite qualify as a demo, or even an alpha, but this peek gives plenty of hints as to what gamers can expect from the completed game.

At first glance, the test fails to live up to expectations, looking more like *Doom* with a facelift than anything special. Only after extensive play do the new subtleties become clear.

Of course, because there are no enemies in place yet, the demo mainly showcases the maps and *Quake*'s use of polygons and textures rather than blocky old bitmaps. Id's development





Oddly, the best demonstration of the 3D engine occurs when peering over a ledge (left) or through an open grate (right)

The new 3D engine is evident throughout. Strafing (top) sways the camera, and it is now possible to run under platforms (middle)

of this technology was a choice move. As well as improving general visual quality, the new, real 3D engine has added noticeable refinements and bonuses to the creaky *Wolfenstein* formula. The lighting, for example, is improved by the clever use of texture-mapping around torches and skylights, adding an eerie luminescence to the otherwise dingy dungeon settings. The light even reflects off the gun, making the participant feel much more a part of the environment.

Further accentuating the sense of immersion is the ability to look up and down, glance around in all directions while moving, and to jump (instead of having to run very fast over chasms a la *Doom*). This attempt to bring the first-person shoot 'em up that bit closer to realism is admirable, but will perhaps be controversial. The control method is still not as advanced as *Marathon*'s (despite *Quake*'s inclusion of a 'freelook' feature which enables the mouse to control the view angle) and, in any case, some could argue the added complexity may detract from *Doom*'s intuitive control system.

In theory, though, the new system is an enhancement. Not being able to look up and down would have been unnatural and, judging by the layouts on offer in the demo, would seriously decrease the chance of survival.

Quake offers astoundingly atmospheric 3D environments where standard *Doom*-esque darkness and gore is combined with breathtaking Escher-like architecture. The maps available are a mass of multi-layered

***Quake* offers astoundingly atmospheric 3D chambers where standard *Doom*-esque darkness and gore is mixed with Escher-like architecture**

Continued next page





***Quake*'s test version enables the game to be played in rather garish polygons (left). After the texture mapping has been added (right)**





Although *Quake*'s lightsourcing is easily the best seen on the PC, it is, in fact, just clever texture mapping

arches, stairways and platforms which entwine around central chambers to create intricate and perplexing labyrinths. This overt complexity is obviously designed to exploit the more exhaustive player controls, and it works – peering over ledges into the dark abyss below will, if the frenzied death match is anything to go by, become an important part of the game.

Each location also contains the usual selection of traps and tricks, including sliding floor sections which open and close above bubbling pits of lava, and extending walkways which can be operated by foot panels strewn about each maze. Subsequently, *Quake*'s landscapes look to be interesting and challenging in their own right, rather than just places for the slaughter to take place.

But slaughter is, of course, what the people want, and slaughter is what they shall no doubt receive. Although little is known about the enemies, the demo does feature six of the proposed eight weapons. There's the trusty shotgun, double-barrelled shotgun, and rocket launcher from *Doom 2*, as well as a marvellous grenade launcher (grenades shoot out, roll about for a while then ignite), a mean nail gun and an even meaner chain nail gun. Yet to be seen are the enticingly-named lightning gun and chain lightning gun, not to appear until completion.

Despite lacking in-game enemies in one-player mode, the excellent network death match does show off the new polygon marines. Opponents appear as beefy, well-detailed characters which, unlike *Doom*'s, don't pixelate into oblivion when you approach them. Furthermore, when one of the enemy marines looks up or down his head moves concurrently – better yet, when he jumps in front of you, your gun follows him up and down.

Character animation is reasonably impressive, but movement can look rather unrealistic, especially when a marine runs up or down a staircase.

When a marine is hit by something like a grenade, his body flies across the screen or simply obliterates into shards of slimy flesh

Continued

But the death animations! When a marine is hit by something like a rocket or grenade, his body flies across the screen or simply obliterates into shards of slimy flesh.

No doubt *Quake* will be a massive hit, just as there's no doubt the smooth, distinguished graphics will be universally applauded by the PC world. But will it offer anything new over its middle-aged predecessors? Considering id virtually invented this genre, it is hoped *Quake* will be more than '*Doom* with a better engine'. Hoped, but by no means guaranteed.





One of the more spectacular weapons is the grenade launcher. A trail of smoke follows the bouncing grenade, which then explodes (top)

International Track & Field

While Konami's nineties sports sim update retains the famed button-bashing gameplay, it's considerably more advanced elsewhere





The dramatic camera work builds atmosphere (left). The 100m freestyle and 110m hurdle events (above left and centre) require a mix of button pressing speed and timing. Putting the shot (right) is merely a test of timing

Format:	**Playstation**
Publisher:	**Konami**
Developer:	**In-house**
Release date:	**July**
Origin:	**Japan**

Few could have foreseen the phenomenal success of Konami's 1983 coin-op, *Track & Field*. It had a remarkably simple interface (being playable using just two buttons if so desired) and visual and aural content which, though undeniable characteristic, were far from groundbreaking. What it *did* offer was the ability to inspire fierce competitive spirit within its participants – something which, as any death match *Doom* fan will attest, is one of the most valuable traits a game can possess in its desire for longevity.

Konami's 1996 PlayStation update does largely what was expected of it, taking established events from the series and recreating them with polygons while retaining a simplistic control method.

What wasn't perhaps expected is the graphical extravagance. Each athlete is animated with *Tekken*-like levels of motion-captured elegance and events are presented from a number of camera angles, including one which pans impressively during the track events for that true Grandstand, Saturday afternoon experience. Superfluous details aren't ignored either – the translucent water effects apparent in the swimming event are mind-bogglingly effective.

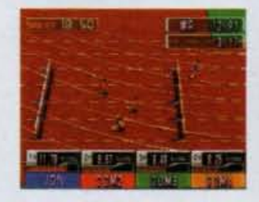
The finished game will include ten events: 100m dash, 110m hurdle, 100m freestyle, long jump, triple jump, high jump, hammer, shot putt, javelin and pole vault. However, although it uses similar play mechanics to the original, *International Track & Field* will no doubt require more skill – in the original the timing of throwing events could be related to the limited number of animation frames, whereas this full 3D update includes more complex movement routines, making such an approach considerably more difficult.

International Track & Field currently ranks as one of **Edge**'s most eagerly-awaited updates of an old game theme. Its atmospheric presentation and multitap compatibility should help it kick up a storm when it's released to coincide with the Atlanta Olympic Games in the summer.



The multitap option makes this the first *T&F* to allow more than two players to play at once





The 100m sprint and 110m hurdles showcase Konami's expertise in PlayStation graphics



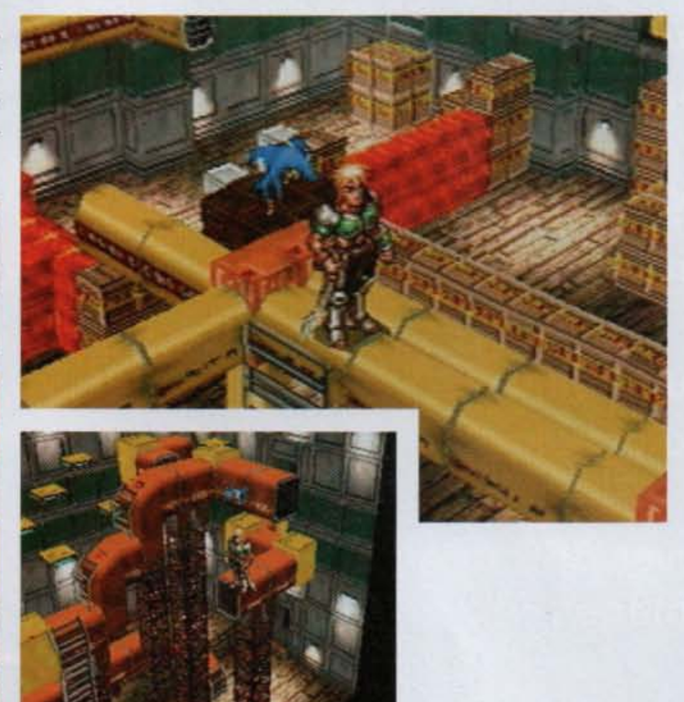


Just as in the original games, throwing events use an angle of elevation meter

Dark Saviour

Eschewing the Saturn's trend to reanimate high-tech coin-ops, Climax continues its quest to deliver a long-lasting challenge

Format:	**Saturn**
Publisher:	**Sega**
Developer:	**Climax**
Release date:	**May**
Origin:	**Japan**





Locations are complex and interesting, making each room look rather like a 3D platform game. The amount of depth is incredible (left). The isometric platform-based environment is constructed from smooth, textured polygons

A console cannot live on arcade conversions alone. Sooner or later, consumers will become alienated with a machine if its software library includes no original products. Which is why *Dark Saviour*, and games like it, will be of intrinsic importance to the Saturn over the coming months. Sega have to prove their console is not just a receptacle for AM2/3 hand-me-downs.

As mentioned in **E**30, *Dark Saviour* is a platform-style arcade adventure from the makers of top Mega Drive RPG, *Landstalkers*. The player takes on the role of Ryu Ya, a bounty hunter who must track down a fugitive monster across various isometrically viewed quasi-mythical/industrial locations. Ryu is able to jump, climb, punch, pick up and use objects. He's also equipped with an inventory screen and an energy bar, reflecting the game's RPG pretensions.

Since **E**30, **Edge** has played an early demo of *Dark Saviour* which shows off just how smoothly the

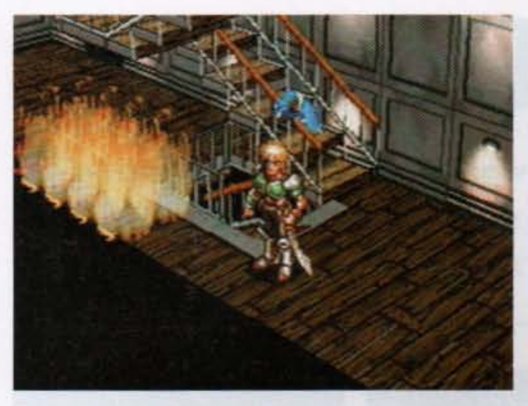


Boarding the ship, Ryu is shadowed by his entourage of mercenary bounty hunters





It is possible to lift up and manipulate objects (left). The player also has a large inventory to store things for later use





The game starts with Ryu and the captured monster both aboard a ship (right) heading for a prison colony. But the beast escapes after an explosion occurs, the result of which being a menacing blaze that spreads throughout (left)





The floating platform (above), although rather clichéd, is now displayed in true 3D

The immensely stylish lead character looks well-placed within the complex and imaginative locations





Select weapons and objects (middle). Track down the beast after it escapes (caged, above)

detailed, polygon-based locations scroll. The visuals really do impress – the immensely stylish lead character looks well-placed within the complex and imaginative locations. There's also a fully interactive camera which can be manipulated using the shoulder-buttons: the left button (used with the direction pad) moves the camera around the player to reveal more of the surrounding landscape, and the right button (again used with the direction pad) changes the angle of view. It's also possible to zoom in for more fiddly movements, and zoom out for the wider picture.

At the moment, though, the camera only seems to work while the character is motionless, as a means of quickly checking around a room. Once the side buttons are released, the camera goes back to its default position.

The complex locations seem to have given the programmers some problems, too. Occasionally, lead character polygons will merge with objects he is passing, and polys close to the camera can sometimes disappear. Furthermore, when Ryu is climbing a ladder, he remains in a climbing pose, even when he is right at the top – so at the platform's edge, he stands with his arms in the air looking ridiculous. Indeed, the character seems short of varied animation frames – at the moment there are no special falling or losing balance moves, which restricts Ryu's realism. Hopefully this will be cleared up by the May launch.

As for gameplay, **Edge** has begun to discover hidden corridors and traps dotted around the place which will no doubt accentuate the already interesting locations. There also seems to be quite a variety of places to visit – the game starts on a boat following an explosion (the flashing red warning light looks great) and moves to factories, castles, and abandoned cities. To add a little action, fights can occur with NPCs (hence the energy bar) and Ryu will be able to call upon a selection of weapons.

With Square moving to the 32bit formats, and games like this on the horizon, perhaps those who don't just want to play arcade conversions might have a reason to dust off their consoles and start playing. **E**





Once the alarm has been activated early on in the game, each location is lit by a pulsating, red hue

The Pandora Directive

The words 'interactive' and 'movie' have so far been mutually exclusive. Will Access' latest be any different?





***The Pandora Directive*'s realtime 3D engine uses polygons instead of skewed bitmaps for complete immersion. It moves fairly smoothly, too**

Format:	**PC**
Publisher:	**Access**
Developer:	**In-house**
Release date:	**TBA**
Origin:	**USA**

Interactivity is the key word in the the US CD-ROM development community. Likewise, 'a high level of interactivity' is the phrase everyone clings to like a security blanket. Recently attending the NY press launch of *The Pandora Directive*, **Edge** was privy to a true Hollywood backslapping affair, bustling with US actors and sprinkled with references to the 'I' word. Atypically, the claims were vindicated.

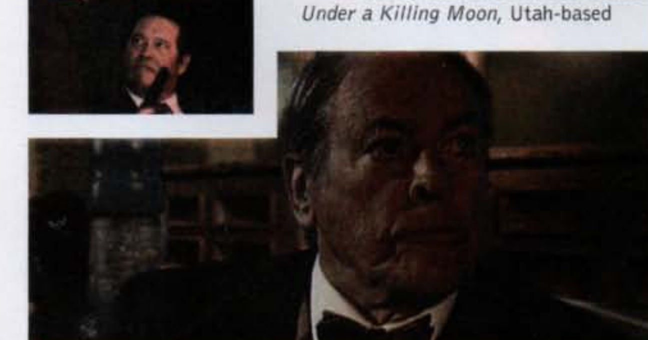
Following the ambitious but flawed *Under a Killing Moon*, Utah-based developers Access (*Beachhead, Echelon, Leaderboard*) have spent around three million dollars producing what it claims is the most interactive movie concept yet. Besides its pretensions to be far more than just a 'search and watch' CD-ROM, the game features an exceptional realtime, yes realtime, 3D engine. Naturally, to capitalise on this a fast Pentium is needed, but even by contemporary standards it's relatively smooth, hi-res, and throws around some sumptuous lightsourced scenery.

Set in 2043, *The Pandora Directive* connects the 1947 Roswell UFO incident to the disappearance of the Mayan civilisation. Playing the role of PI Tex Murphy, the player negotiates a path through the game choosing one of three routes and facing one of seven endings. And, as with any interactive movie worth its salt, *TPD* features the usual bevy of under-exposed Hollywood acting 'talent'. Barry Corbin (Northern Exposure) and Tanya Roberts (View To A Kill; Sheena, Queen Of The Jungle) all lend their abilities to this point-and-click fest.

Despite an interesting storyline and its obvious technical and artistic embellishments, it remains to be seen if *The Pandora Directive* will be undermined – as if often the case – by irritating puzzles and cheesy FMV. Traits that, so far at least, have more in common with the interactive movie than interactivity.







Actors involved include (from bottom) Kevin McCarthy, Barry Corbin, Tanya Roberts, and Access's own Chris Jones who plays leading role







The use of effective texturing means that the locations take on a photorealistic look

Super Mario RPG

With the help of Square Soft, Nintendo's most eminent hero is being spoon-fed to an RPG audience taking its first steps





Many of Nintendo's star characters make cameo appearances (Yoshi, above) in cute mode

Format:	**SFC**
Publisher:	**Nintendo**
Developer:	**Nintendo /Square Soft**
Release date:	**March**
Origin:	**Japan**



Place Al Pacino and Robert de Niro on screen together, says one popular theory, and you'll surely witness the movie of their careers. It's the same line of thinking that assumes a joint venture between Nintendo and Square – in a game starring an equally famous Italian – cannot fail to impress.

Sliding between isometric action scenes and menu-driven battle sequences, *Super Mario RPG* drags the little plumber into realms of pseudo-3D movement and pre-rendered pulchritude for a spot of rejuvenation prior to his 64bit debut. The trademark's iconography has been cleverly exploited – wooden mallets and koopa shells can be equipped as weapons and armour, for instance – without losing its familiarity, or its simplistic appeal, in the process.

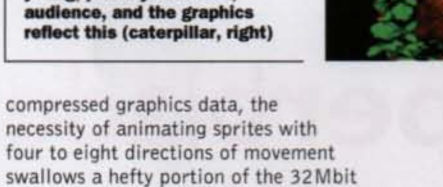
However, those expecting *Final Fantasy* meets *Super Mario World* deep in *Donkey Kong Country* might have cause to reconsider when they discover *SMRPG* aims to introduce the younger player to console roleplaying.

Creating an entry-level RPG means inevitable compromises. A toad-alike mushroom boy pops up on demand to explain every new aspect or skill, and a few bonus games even carry the whiff of 'edutainment', by encouraging the learning of musical notation and rhythm (staples of the steadfastly traditional Japanese primary education system).

It was predictable that Rare's groundwork in ACM modelling would form the basis of other Nintendo titles, but first impressions might question its all-round application. Even with the help of an SA-1 chip to unpack compressed graphics data, the necessity of animating sprites with four to eight directions of movement swallows a hefty portion of the 32Mbit cartridge. How much game is squeezed into the remainder remains to be seen.

It's hard to tell if an attempt to cater for the younger members of the Japanese household indicates shrewd business strategy or laudable devotion. In targeting a particular home market it eschews the 'all ages, all abilities' accessibility principle that has moulded Nintendo culture, and many older players may be unpleasantly surprised to find themselves excluded from the brief.





The game is targeted at a young, primary schooled, audience, and the graphics reflect this (caterpillar, right)





Attacks and other battle actions are controlled via a simple interface (top)





SMRPG crams the 32Mbit cart with masses of rendered isometric 3D graphics, posing the question, how much room is left for gameplay?

Zork Nemesis

Format:	PC CD-ROM
Publisher:	Activision
Developer:	In-house
Release date:	April
Origin:	US







The gorgeous, highly detailed, pre-rendered scenery can be scrolled through 360 degrees

Despite the legendary status of the *Zork* series, *Return to Zork* faired badly when it was originally reviewed in **E**3. The combination of poor acting and overtly linear gameplay left many in some doubt about the validity of the new interactive movie genre. It's a doubt which remains to this day.

Zork Nemesis promises professional actors, top hollywood production talent (including sometime X-Files director, Joe Napoltano) and an immersive plot – in an effort to restore faith in this condemned genre. The game is set in an unchartered section of the *Zork* universe named the Forbidden Lands: a surreal underworld where the 'Nemesis' has trapped five alchemists in suspended animation. After being sucked into the Forbidden Lands, you must learn the secrets of alchemy in order to revive the sleeping philosophers and ensure your escape.



The game is set in a surreal world where the wicked Nemesis reigns and gothic architecture seems highly popular

It's basically a point and click adventure employing standard interactive movie techniques (FMV, spooky soundtrack, etc), but doing so very well. The pre-rendered graphics are beautifully designed, and, thanks to Activision's z-vision technology, each scene can be scrolled through 360 degrees for full examination.

But will *Zork Nemesis* suffer from the limited gameplay so familiar to interactive movies? Only time will tell...

Hyperblade

Format:	PC CD-ROM
Publisher:	Activision
Developer:	In-house
Release date:	June
Origin:	US



Running Man, Rollerball and Blade Runner must all have contributed to the 'dark future' look

One way of avoiding the usual licensing nightmares associated with developing sports sims is to make up a new sport and design a game from there, instead.

That's what Activision have done with *Hyperblade* – a futuristic combination of Roller Ball, Hockey and Curling. Here, teams must use their 'jaks', or futuristic catching devices, to get the 'rok', or futuristic ball (Activision are really opening themselves up for some double entendres here) and lob it through the opposing team's goal. The action takes place in a huge arena where obstacles such as turnstiles, hurdles and trenches have been thrown in to make it a little more interesting.

Visually, *Hyperblade* is shaping up to be pretty impressive. Activision have drafted in Rhythm and Hues, the design company responsible for Coca Cola's polar bear advert, to assist with the 3D textured arenas and team members. The latter look particularly good, benefiting from motion capture and over 36,000 frames of animation each. This over-abundance is a necessity – each team member is capable of dozens of special moves, including kicks, spins, flips and twists.

With network and modem options thrown in, *Hyperblade* shows promise. The question is whether the PC can cope with a game obviously relying on speed and the quick manipulation of a large 3D environment. Previous 3D titles have suggested not. Activision may prove otherwise.







Hyperblade takes place in a huge arena bowl complete with jumps, trenches and traps

Over Blood



Realtime graphics (above) aren't far from the quality of the prerendered type (top)

Format:	**PlayStation**
Publisher:	**Riverhill Soft**
Developer:	**In-house**
Release date:	**TBA**
Origin:	**Japan**

Riverhill Soft, creator of the popular Japanese 3DO title *Doctor Hauzer*, is bringing its brand of *Alone In The Dark*-inspired gameplay to the PlayStation, in the form of *Over Blood*, a futuristic sci-fi adventure.

Waking in an Aliens-esque sleeping capsule after an accident forced its malfunction, the character you play has lost his memory. Your task at first is simply one of discovery, to find out what brought you here and why, but it soon develops into an investigation as you uncover a dead body.





Over Blood's setting successfully apes classic sci-fi flicks such as Silent Running. These precarious sections are hugely atmospheric

The major difference between *Over Blood* and the likes of *Alone In The Dark* is that Riverhill's game offers three types of view: 'Eye' (presenting the action from your character's direct field of vision), 'Follow' (where the game 'camera' positions itself just behind the player) and 'Sight' (which automatically flips between various vantage points á la *Alone*). All are interchangeable during play.



Over Blood's playing area is a futuristic complex spread over five levels containing 60 labs filled with hi-tech research equipment, recreational furnishings and vegetation. This, coupled with the arrival of a second playable character later in the game, sees *Over Blood* threatening to rival Capcom's *Biohazard*. Hopefully, Riverhill's relative lack of experience won't be to the game's detriment.

While the 'Follow' view (above) is the clearest, the 'Sight' view (top) is far more dramatic

Wild Arms







Though visually intense, combat is controlled via a simple interface (above)

Format:	**PlayStation**
Publisher:	**SCE**
Developer:	**In-house**
Release date:	**TBA**
Origin:	**Japan**

While 32bit gamers can play the best driving games, shoot 'em ups and sports simulations on their machines, they currently have to look back to Nintendo's 16bit platform to find the best examples of RPGs.

The situation is set to change, however, with the arrival of a new strain of the breed in the form of Square Soft's *Final Fantasy VII* and Sony's *Wild Arms*.

Delivered in a more conventional fashion than Square's effort – for the most part the action is viewed in strict top-down style, compared to *FF VII*'s wildly varied viewpoints, for example – *Wild Arms* sets up a fairly typical plot: Falgia, the game world, has been afflicted with disease, monsters roam freely within its realms, and it is on the verge of an invasion from a powerful enemy force. In charge of three heroes – Zack, Cecelia and Roddy, the leader of the party whose mechanical arm gives the game its title – your aim is, in true RPG style, to save the land from ruin.



While the main game allows for several *Zelda*-type actions, such as lifting and pushing objects, the combat mode is firmly turn-based and thus less interactive. During battles textured polys are used, the camera sweeping around the scene as both weapon-based and magical attacks are exchanged between opposing parties.

Though lacking the lavish appeal of Square's efforts, *Wild Arms* will nevertheless be welcomed by the army of fans so far starved of quality 32bit RPGs.



Wild Arms' enemies come in a variety of shapes and sizes, with abilities to match

EDGE *Gallery*

Imagery enriching the world's most aesthetic interactive entertainment

As computer-generated imagery (CGI) steadfastly approaches reality, technology is placing higher demands upon the artists that command it. **Edge**'s Gallery is a showcase for the work of the best digital artists within, and occasionally outside, the interactive entertainment industry.

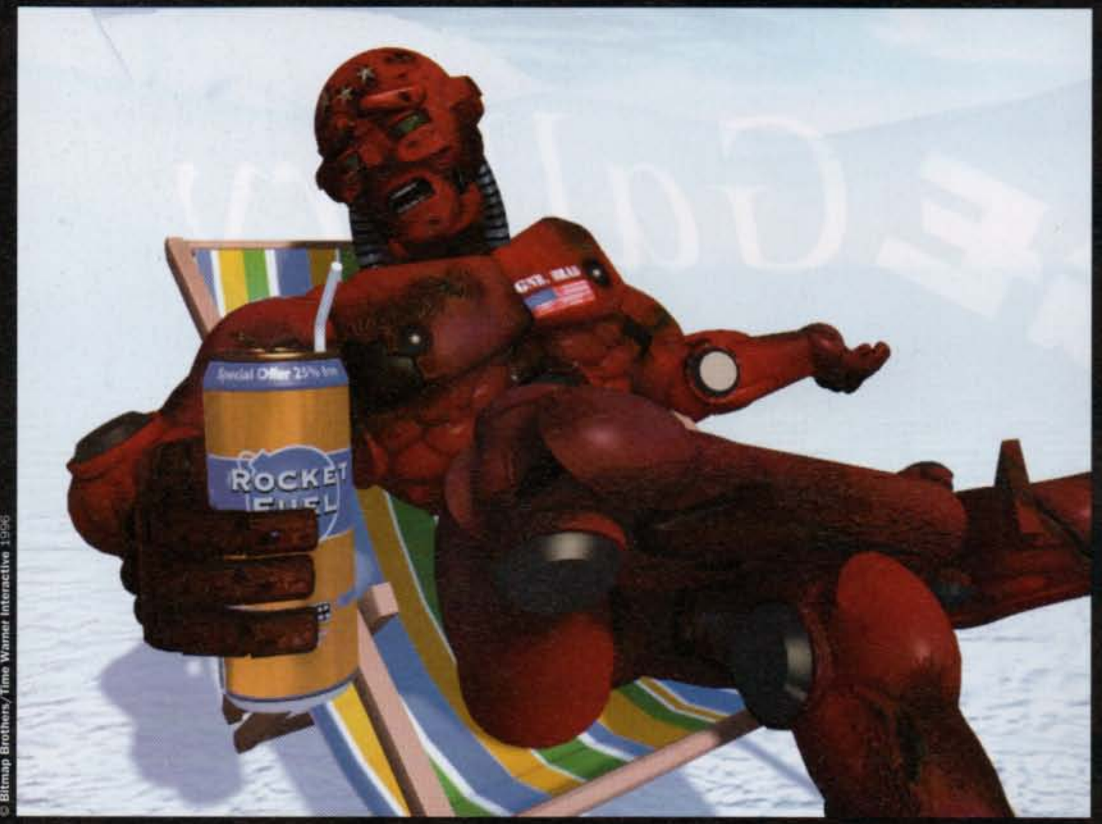
Given the plethora of CG-based projects in development, **Edge** will be discerning about what it prints, with graphics assessed for their artistic merit rather than any perceived technical worth. Every month **Edge** will endeavour to select not only the most skillfully modelled art, but also those images that depict an original approach, or a brave spin on a jaded concept. Take the work by Paris team, Amazing Studio. *Heart Of Darkness* (premiered in **E**20) is just one of a new breed of videogame projects that employs CGI to convey emotion, drama and, above all, humour. Whether striving to duplicate reality, or dreaming up artificial worlds, the importance of CGI cannot be underplayed – with the advent of new 3D hardware, realtime visuals have already caught up with standards previously only possible in pre-generated form.

In forthcoming issues, **Edge** will reveal the best artists working in the CG industry, as well as analysing the technology that is opening up new creative horizons.



Shiny Entertainment's take on Rembrandt's rather grisly Anatomic lesson by Dr Nicolae Tulp (1632) is a fine example of how 2D imagery can be altered digitally in an image manipulation program such as *Photoshop*. To superimpose their own faces on the painting, the team photographed themselves with a Polaroid camera, and replaced the original faces with their own.

Created by Tim Williams, Bob Stevenson and Nick Bruty using Adobe *Photoshop*



Strong character design is perhaps one artistic challenge that UK graphic designers consistently fail to meet. The Bitmap Brothers' *Z*, however, has employed excellent designs for its duo of hapless robots that carry the game's introduction and cut-scenes. Drawing influences from the US military and 2000 AD, without succumbing to the stockpile of macho clichés, *Z*'s CG animation relies on some neat visual gags and immaculate *3D Studio* work (note the rust on the robot's breast plate). For an even wider visual impact, the artists have rendered real creatures, too – a notoriously difficult task, as anyone who has seen the pet dog in Toy Story will vouch.

Created by Chris Thomas and Terry Catrell using 3D Studio





Heart Of Darkness is the work of Parisian developers, Amazing Studio, a team headed up by the deeply talented Eric Chahi, the designer of *Another World*. Previously featured in **E**20, *HOD* is an ambitious PC game employing some exquisite *3D Studio*-rendered characters and backdrops. Eric Chahi's artistic vision is firmly at odds with the approach taken by many CG designers: 'We didn't want that computer graphic look that *3D Studio* usually has. You know the kind of thing – high-tech spaceships, etc. We're using CGI to provide a unity between the cinematics and the actual game.' The team is currently battling towards a September release for *Heart Of Darkness*.

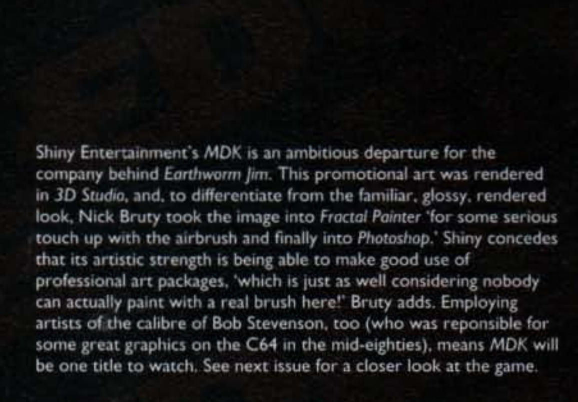
Created by Fabrice Visserot, Jerome Combe, Patrick Daher and Stephane Hamache using *3D Studio*





Japan's obsession with digital technology means it is home to some of the most experienced CG artists in the world. This, coupled with the fact that the Japanese can often out-design even Hollywood, means the Nippon games industry relies on some formidable artistic talent. Sony Music Entertainment's *Kowloon's Gate* is one such game exploiting such resources, and is the company's first in-house PlayStation project. Featuring a scenario set in Hong Kong after China regains sovereignty, the game attempts to tap the same rich, artistic vein as previous release, *Kileak The Book* (designed by affiliated third party developer Genki). These sumptuous character designs are just a taste of the project.

Created by Nakaji Kimura using *Softimage*



Shiny Entertainment's *MDK* is an ambitious departure for the company behind *Earthworm Jim*. This promotional art was rendered in *3D Studio*, and, to differentiate from the familiar, glossy, rendered look, Nick Bruty took the image into *Fractal Painter* 'for some serious touch up with the airbrush and finally into *Photoshop*.' Shiny concedes that its artistic strength is being able to make good use of professional art packages, 'which is just as well considering nobody can actually paint with a real brush here!' Bruty adds. Employing artists of the calibre of Bob Stevenson, too (who was reponsible for some great graphics on the C64 in the mid-eighties), means *MDK* will be one title to watch. See next issue for a closer look at the game.

Created by Tim Williams, Bob Stevenson and Nick Bruty using *3D Studio* and *Adobe Photoshop*

Company focus



After a rocky few years in the 16bit wilderness, premier Japanese software company, Konami, has been given the 32bit kiss of life. **Edge** explores the making of an empire...

Since its formation on 21 March, 1969, Konami Co, Ltd has enjoyed a position which most other Japanese-based entertainment companies can only dream of. Entering the videogames market at around the same time as its Japanese peers, Namco and Taito, 1979 saw its first dabblings come to fruition, and by the mid-eighties it had become a major force both in the coin-op sphere (with worldwide smashes such as the *Track and Field* series) and in the home market (with a range of high-profile releases for the MSX range of computers).

As one of the first six third-party licensees for the NES (along with the likes of Capcom, Hudson and Bandai), Konami's work on Nintendo's 8bit console proved to be its making, its earnings growing from $10m in 1987 to $300m in 1991 (including an astonishing 2,500% increase in sales between 1989 and 1991 alone) – largely thanks to the *Teenage Mutant Ninja Turtles* games, released on its subsidiary label, Ultra.

The *Turtles* experience hurtled Konami to become the largest NES licensee, the eighth largest software publisher, and the ninth largest toy company in the US. Arcade business was still relatively brisk, and the company was in a dominant position.

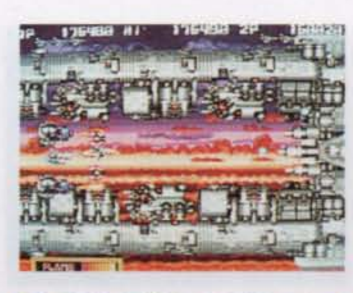
In the years that followed, however, Capcom, Sega and Namco began to flex their muscles on the coin-op scene, while Konami struggled to replicate the earlier successes it had enjoyed with games such as *Gryzor*, *Green Beret* and the *Gradius* series. Console production remained as illustrious as ever, but without a license as lucrative as the *Turtles*, it fell to novel ideas to propel its fortunes.

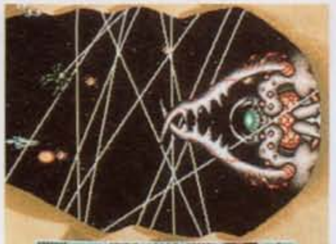
They didn't.

After writing off £90m of stock (mostly in the US), Konami posted major losses at the end of its financial year on 31 March, 1995. In the meantime the company had invested its R&D efforts in 32bit platforms, while also rethinking its arcade approach in an effort to take on Sega and Namco at their own game.

The fruits of these toils are slowly coming to bear, with recent coin-ops picking up significant attention in Japan and a selection of impressive-looking original PlayStation and Saturn games on their way. The recently formed development facility based in Chicago also bears witness to Konami's dedication to R&D, leaving the company poised to reaffirm its position as a world leader in videogame entertainment.

Edge visited Konami's Japanese headquarters in Toranomon, in the centre of Tokyo, to speak with **Nagata Akihiki**, the company's general manager.







Konami's early coin-op releases were mainly action-heavy shoot 'em ups. Clockwise from top left: *Thundercross*, *Gryzor* and the Japan-only *Gradius III*

Edge Konami has a long history of creating videogames. How did you enter the industry?

NA We began at first as an arcade company. When the first home consoles came out – or more specifically Nintendo's Famicom [known as the NES in the west] – we started developing software. We want to sell product that customers can enjoy. It's our primary rule.

Edge What were Konami's first arcade releases?

NA First, if I remember rightly, there was a game called *Dom*, and maybe *G-End*, a copy of *Space Invaders*. At that time we were specialising in shooting games, bazooka or tennis games. Technically speaking, we used a lot of the scrolling techniques in our first games.

Edge How about your early 16bit games?

NA That's difficult… We did more than 50 titles. As far as sales go, the biggest hit was *TMNT* [*Teenage Mutant Ninja Turtles*], but that was released on numerous

Continued next page





Konami's headquarters (left), situated in the heart of Tokyo. General manager Nagata Akihiki (right)

Company focus

platforms. If you took all versions together, we maybe sold around 5,000,000 units worldwide, mostly in the US – a good figure for a game developed in Japan.

Edge R&D is a big part of game development these days. How many people does Konami have in this field?

NA In the whole group, around 900 work in R&D, representing roughly 70% of the total Konami staff. We have centres in Kobe, Osaka, two centres in Tokyo, and different centres in Yokohama, such as Zama. Outside Japan we also have offices in Chicago. Consumer [console] games are made in Tokyo and Osaka without any consideration for a platform – the first thing we decide is the kind of game to make, rather than which platform to write for. Arcade development takes place in Zama and Kobe and we also develop games in Chicago.

Edge Among the 32bit formats, for which hardware does Konami produce the most?

NA Our strategy is to develop one title and convert it for all platforms. We might develop first on the PlayStation, Saturn or 3DO – there's no specific rule. Whatever the game, our intention is for the consumer to enjoy it on his own platform. We do consider hardware sales, because they're important to us, and soon we are going to stop developing for one platform in particular.

Edge But there must be one favoured platform for game development?

NA Presently we are developing 50% of our games on 16bit, mainly Super Famicom [SNES], and the other 50% on 32bit platforms. But we are slowly drifting toward 32bit. And maybe 64bit soon…

Edge Konami has a reputation for producing cute (kawai, in Japanese) games.

NA True, we do excel in that field, but we also create good shooting and action games. Recently, we have been interested in RPG or simulation games. Generally, however, Konami cover all games – sports, adventure, etc.

Edge You recently produced the PlayStation RPG, *Genso Suikoden*. Is this an area Konami is moving into heavily?

NA Yes, we are beginning to make more RPGs. *Suikoden* isn't the first RPG we've done, but the previous ones weren't too successful. We're more confident this time!

Edge Your 32bit software has included fairly unadventurous conversions of the *Parodius* series. How are these going to develop?

NA Concerning the content of the game, it will not change very much. Our main concern is to make the game available to owners of different platforms, rather than changing the game's content. We don't know yet if we are going to make any original *Parodius* games just for the Playstation or Saturn. We are thinking about it, but we want first to release big-hit arcade games on home consoles. *Twin Bee* is a little bit different – we are developing other games, an RPG, for example, around the main character from the original.

Edge But the 16bit situation in Japan is on the decline?

NA I think they will survive for between a year and a year-and-a-half. In my opinion, next autumn SFC software will become rare. At the moment, 32bit and 16bit represent about half of our production, but soon 32bit will cover about 80%.

Edge What is your policy abroad?

NA We have the same policy as in Japan, but, of course, the culture is very different. There are some Japanese games we cannot release worldwide because they are too specific to the home market – *Goemon*, *Parodius* and games which use traditional Japanese characters, for example. Abroad, we release a game according to that market –





Konami's *Teenage Mutant Ninja Turtle* license proved incredibly lucrative (coin-op version, above left). Its 32bit RPG, *Densoo Suikoden* (above right)

16bit consoles will survive for between a year and a year-and-a-half. Next autumn, they will be rare

Nagata Akihiki general manager, Konami





Konami's '96 line-up is diverse, with action title, *Project Overkill* (top) joining sports games such as *Konami Links* (above)



Konami has updated *Track & Field* with coin-ops, *Combat School* (top) and the rare *Konami 88* (above)

sports games, for example, are numerous in Europe.

Edge How are you finding the home market of late?

NA The home consumer market has really improved, mainly because of the arrival of 32bit hardware. We see no reason to change our marketing policy, but from now on we are going to make more original games.

Edge Finally, have you plans for Nintendo 64 development?

NA Oh yes, absolutely!

Although Capcom might contest this, Konami believes itself to be back in the top three coin-op manufacturers in the world (after Namco and Sega), and it has achieved this by moving into the realms of three-dimensional games using dedicated cabinets.

Konami's development centre in Kobe is dedicated to arcade R&D. This sizeable facility, which houses around 200 staff, produces about half-a-dozen coin-ops each year, mainly in the point-and-shoot mould of games such as the threeplayer *Crypt Killers* – it was here that 1993's successful *Lethal Enforcers* was born.

Edge spoke to the Kobe centre's Technical Research Department manager, **Tanaka Fumihaki**.

Edge How did Konami's racing game, *Speed King*, begin its life?

TF First and foremost we wanted to make a racing game. Eleven years ago we did a driving game called *WEC Le Mans*, where the player could turn through 360 degrees. Based on this concept, we decided to make *Speed King*. Concerning the game world, it all takes place in the near future – we wanted to use the same world as [PC Engine and Mega CD game] *Snatcher*, so the world was dark and grim. Next time we are going to use a world that's more clear.

Edge What was the most difficult part in creating the game?

TF Perfecting the driving sensation was probably the hardest element. The sync between game and hardware was also difficult to get just right.

Edge How many worked on the *Speed King* project ?

TF Working from our Kobe centre, the entire project took around 20 people.

Edge Does *Speed King* use a dedicated arcade board, and if so, which one?

TF We are using a custom board made especially. The main processor is 32bit. Next year we are going to use a new 64bit processor, but we cannot say the name yet. We are also going to use some new semi-conductors for our future boards. The software will be of a higher quality than that in *Midnight Run*.

Edge Are you satisfied with *Speed King* as an end product?

TF Well, I wanted to use oil shock absorbers, but because the game would be in game centres we were not able to use oil. So, instead we used air shock absorbers, which are cleaner. Of course, the response was then different, making it difficult for us to link dampening with graphics. Sometimes the body feeling and graphics weren't in sync.

Edge You say the software technology will be improved, but what about cabinet technology?





Konami Computer Entertainment president, Kitaue Kazumi (left) and *Speed King* creator, Tanaka Fumihaki (right)

TF Both technologies must be improved together. For example in computer technology, not only has CISC been improved to RISC chips, but also compilers are more advanced. Concerning mapping techniques, we will soon be going from mipmap-mapping to bump-mapping. But we do not use bump-mapping for *Speed King*.

As well as making plans to move into the PC market, Konami has created a new publishing sub-label, Konami XXL Sports Series, dedicated to tapping the enormous Western market that exists for games of this nature.

Edge visited the company's Jimbocho development centre, where most of its non-coin-op games are created, and met the president of Konami Computer Entertainment, **Kitaue Kazumi**.

Edge What sort of work goes on in Konami's Jombocho centre?

KK Here, we're mainly working on PlayStation and Saturn games, and we are also doing some PC games. We haven't started work on N64 games yet, but they are in our plans.

For the European market we have done *Winning Eleven* and *NBA*







***Speed King*, a futuristic racing game with more than a passing resemblance to Psygnosis' *Wipeout*, is Konami's most ambitious coin-op yet, featuring an enclosed AS1-style cockpit which seats two players. The machine's fierce hydraulic movements have attracted a lot of attention**

Continued next page



In The Zone. For the Japanese market we've been working on *Genso Suikoden*, *NBA Power Dunkers* and *Snatcher*, all for the PlayStation. We have been doing some typically Japanese games for the Saturn such as *Tokimeki Memorial* and *Chibi Maruko*. They are games for young students.

Edge Why does development take place first on the PlayStation, and then on Saturn afterwards?

KK The PlayStation development tools were done before the Saturn's, and we began our contract with Sega around a year after Sony. It has only been a question of schedule, nothing more. Now, we are going to develop according to the market trends. If the Saturn is more successful we will develop on that. Looking at the European and US market, the PlayStation seems to have a better position than the Saturn, so we must consider this when we are developing.

Edge Is Konami more keen on original games or conversions?

KK We are developing some original games and we are also doing coin-op conversions and sequels to games on other formats. Until now, our jobs were made easy by developing series and conversions, which represented a large number of our developments before. From now, we are going to make more original software for a dedicated platform. *Genso Suikoden* is a good example.



Konami's ***Haunted Castle*** **coin-op is the precursor to the forthcoming PlayStation title** ***Castlevania XX***

Edge So there's no danger that you are specialising in PlayStation software too much?

KK In terms of number of games, after Namco, we are the second largest game producer for the PlayStation. For the Saturn, except for Sega of course, we are the first game developer. We are in a good position for both platforms.

Edge So all games are going to appear on Saturn and PlayStation?

KK The PlayStation's strong point is of course its polygon-handling abilities. The Saturn has different characteristics – we've developed a soccer game and a basketball game for the PlayStation in full 3D and we've been doing some preliminary tests to see if we can develop these on the Saturn.

Edge Are you using the new Saturn OS, the Sega Graphics Library (SGL)?

KK Yes, we are using it despite its great number of bugs (laughs). Basically, the concept of the Saturn's new OS and PlayStation development tools are the same. But the Saturn development tools need a little bit of work.

Edge Which types of game are most popular in Japan?

KK Simulations and RPGs are the most popular. So, next year we would like to develop some RPG titles, but it is not easy. Working in-house, it took us two years to make *Genso Suikoden*, compared to only six months for the average shooting game.

Edge PlayStation owners will be looking forward to the new *Dracula XX*. Is it being produced at Jimbocho?

KK Yes, we're doing it here. It has actually developed into an action RPG, rather than just an action game – the player will have to use his head. A CGI intro has also been added. The game should be released by the summer here in Japan, and late 1996 in Europe.

Edge It's one of Konami's biggest ever games – how many platforms has it been developed for?

KK First it was released for the 8bit Famicom, eight years ago, if I remember rightly. Since then it has been released on PC Engine, PC Sharp X68000, coin-op, Super Famicom and Mega Drive. In sales terms, the first disk system version sold around 1,000,000! The SFC version only sold 800,000 carts.

I think that each format – Saturn, PlayStation and Nintendo 64 – will end up with a third of the market

Kitaue Kazumi, president, Konami







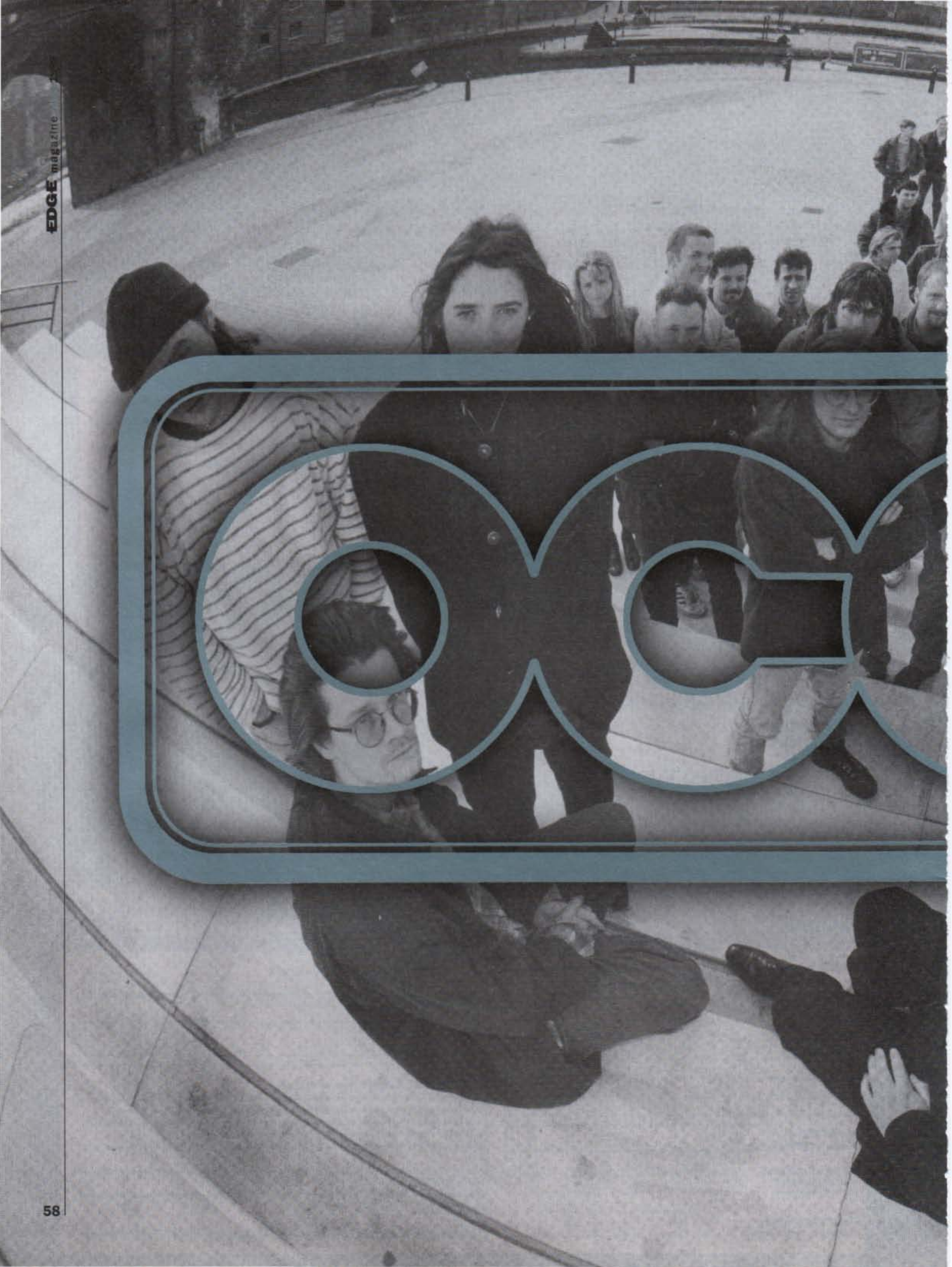
Konami's Jimbocho centre (right) houses the company's Japanese console development facility (left) and its rather cramped game testing area (top left)

Edge How is the series changing with the advent of 32bit systems?

KK Perhaps the best point is the music. With CD-ROM, game sound became better and many games now use speech. Graphics are changing, but this doesn't improve gameplay, it only improves the game's image.

Edge What do you think will happen to the 32bit market when the Nintendo 64 is released?

KK I think that each format – Saturn, PlayStation and N64 – will end up with a third of the market. No system will be the big winner. All the systems out there are fine for the individual user – their success will depend purely on the quality of the games for the hardware. Of course, PlayStation and Saturn prices are also getting closer to the N64 launch price – the average price is now around ¥25,000, but it should drop further. N64 software will be, of course, dearer.





ocean view

With three multi-platform games currently in development, a brilliant license to exploit and some incredible equipment to play around with, Ocean's new in-house development team, Tribe, looks set to become a prominent force in the wildly expanding next gen games scene. **Edge** braves the bitter Manchester weather and mad inner city one way system on a quest called 'Tribe'







In an attempt to illustrate the exclusivity of Ocean HQ's Manchester locale, **Andy Hughes**, the company's product marketing manager, points out a large building across the canal. 'Jason Orange lives there,' he says, recalling the day Take That announced their split and dozens of teenage girls stood outside and wailed inconsolably.

Until recently, Castlefield was one of the city's bleaker corners – a post industrial waste land of derelict warehouses, crumbling viaducts and suspiciously bubbling canals. Now it's all being refurbished. The canals have been drained for cleaning, the warehouses have been rebuilt and the area is finally a cosmopolitan home to, amongst many others, a software industry giant and a soon to be ex-popstar.

The revival of the landscape surrounding Ocean handily reflects the company's own renaissance. In the 8bit days, after a spate of excellent titles which gave the company heavy financial clout, it was famous for dire licensed products – titles such as *Knight Rider*, *V* and *Miami Vice* were churned out at an alarming rate, written by tiny, external programming teams and aimed at a then naive audience.

Luckily, things changed. Ocean went on to produce quality titles like *Parallax* and *Batman*, and set up a precursive in-house team, with **Gary Bracey** as manager, which created several successful games for the 16bit consoles (including *The Addams Family* and *Jurassic Park*).

However, when it came to developing for the next gen formats, **Ian Turnbull**, head of software development (drafted in six months before Bracey left), knew the company's present internal setup would not suffice – a new team had to be created. 'There was no chorus of angels shining forth from the heavens above with the ultimate plan,' says Ian on the ideas behind Tribe. 'Basically, we knew the jump from 8/16bit technology to 32/64bit technology was going to be a big one. We also knew the existing way Ocean worked was not suitable for the quality of product we envisaged. I could see a more professional, structured way of working was needed, that allowed creativity to come through.'

The final plan was to divide the team into separate, self-managing groups who would then work on different projects. Now, each group has a team leader, lead programmer and designer. 'Most importantly,' Turnbull points out, 'each of these positions is filled by an active member of the team – we do not have wasted management.' The self-managing aspect was critical, as Turnbull says, 'Too many companies feel they need to overtly control the creative talent by installing layers of directors, assistant directors, producers, etc, none of whom understand the creative process – just think of poor



Photography by Jude Edginton

Tribe team Leaders (from left to right), Andy Gavin, Warren Lancashire, Nigel 'Pig' Kershaw, Gerald Weatherup and Mark Ripley pose outside Ocean's Manchester Headquarters. The inspiration for *HMS Carnage*'s industrial look becomes obvious









The oxymoronically-titled *Dawn of Darkness* offers a diverse range of gloomy settings and equally gloomy baddies – the undead middle-aged woman (above right) is particularly attractive. There's also the usual selection of weapons including a shotgun (top left), an Uzi (top right) and a handgun (above left). The zombies tend to stick to hammers

Leonardo sitting in his attic in front of his canvas, brush in hand, with a producer saying 'no, no, no, the mouth is all wrong. What kind of smile is that? It won't work, you need teeth – loads of shiny teeth. Trust me Leo, I know.'

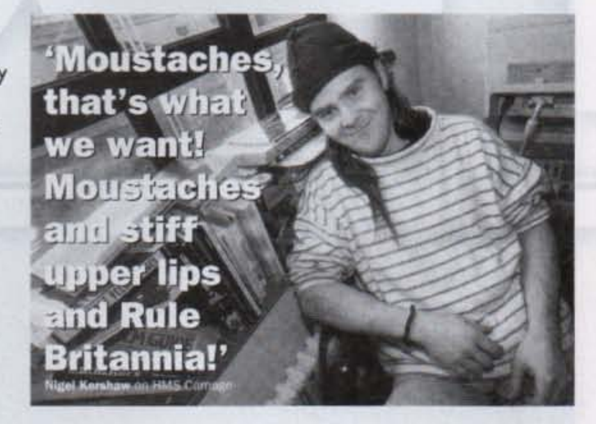
The 'no interfering executives' rule definitely appears to be in operation. As one team leader, **Nigel 'Pig'** (don't ask – **Edge** didn't) **Kershaw**, says, 'The great thing about working at Ocean is that you don't have 27 producers constantly looking over your shoulder and saying, 'I think you should do it like this' that so typifies the industry... we get to keep everyone sweating.'

Spending time developing 'strong, solid game designs' is another important aspect of Tribe's development philosophy. 'Text designs begin six months before coding even starts,' says Turnbull, 'followed up with full storyboarding and map design.' There's none of this 'Wow, we've made some lovely graphics, let's release them as a new title... Doh! We forgot about gameplay.' As Kershaw continues, 'Ocean have the foresight to give us time and money, to allow people to sit down, have a good think, and come up with something that is (hopefully) a good product, rather than rushing a sub-standard product out to fill a product window.' A refreshing, if somewhat idealistic approach to software development. Who knows, maybe it will catch on.

So, over the past two years, Ocean has been building up a formidable and proudly 'middle managementless' in-house team. Programmers, set designers, musicians, artists, modellers and pure mathematicians have all been recruited, and according to the ethos behind the team, all get a say in what happens. The tribe is now 80-strong and, according to Ian Turnbull, it's still growing.

Out of the

three titles currently in development, *Dawn of Darkness* is definitely the one closest to completion. It's basically a *Doom* clone, but, as Turnbull says (exempt of irony), with the emphasis placed on horror and gore. The setting is highly reminiscent of a George Romero zombie film. It's 2095 and the human race has been destroyed by an army of exhumed undead warriors lead by a pleasant character called Mundae. Most of the human race have been turned into vicious zombies, apart from a small group of survivors. No prizes for guessing which side the player is on.


'Moustaches, that's what we want! Moustaches and stiff upper lips and Rule Britannia!'
Nigel Kershaw on HMS Compo

Dawn of Darkness has several notable features, despite its standard first-person shoot 'em up tag.

Continued next page



Continued

Along with many other titles that make up the latest batch of *Doom* clones, *DoD* is a true 3D experience. The player controls the ingame character with both the cursor keys and the mouse – one directing body movement, one directing the character's head. In this way, it is possible to walk in one direction while looking anywhere you want.

It feels a little strange to begin with, but soon becomes intuitive and necessary. Unlike many of its competitors, the ability to look up and down is a vital part of *Dawn of Darkness*. Some enemies are too small to be shot at in the default, looking straight ahead, view, and some can fly, meaning attacks from above have to be anticipated.



Most impressive is the level of graphical detail on show. Each location is full of small visual features (flashing lights on control panels, neon signs) which add much to the realism, and therefore the atmosphere, of the game. To prevent this from causing slow down, the programmers employ MIP-mapping techniques so the level of graphical detail is graded in relation to how close the player is.

Dawn of Darkness also boasts a huge range of highly divergent locations ranging from shopping malls (a la Day of the Dead) and car parks to rat infested sewers. The choice of settings goes a long way to accentuating the 'horror movie' feel of the game, as does the eerie darkness that envelops the game. Furthermore, the area available to explore is massive – apparently the city, where much of the action takes place, is actually the size of London – and the player can visit all of it.

Out of step with current video game thought, the team responsible for *DoD* have chosen to draw the enemies (a motley collection of alarmingly repulsive zombies) as sprites, rather than building them as complex polygon models. 'We did it to keep the speed of the engine up,' explains Turnbull. 'The characters you're up against are all 2D sprites but in a 3D environment. They're the highest resolution sprites that anybody's done so far – most of them are 96x96 pixels, in most other games they'll be smaller – 60x60.'

How to create **Pandemonium**

Pandemonium is an attempt to create a fully interactive cartoon adventure using characters and voice actors from the Hanna Barbera stable.

To add to the authenticity of the game, Tribe used traditional cartoon techniques and animation technology in the design process. Here's how...

1. The animated characters are hand drawn in the traditional way, ie by a cartoon artist with 24 line drawings (frames) per second.

2. The line drawings are then scanned into an application called *Animo*, running on a high-end PC. '*Animo* is a package used in the animation industry to create cartoons,' says Gerald Weatherup, team leader on *Pandemonium*. 'We use it to check line drawing continuity before each frame is painted.'

3. Similarly, the game backgrounds are hand-painted, scanned into the PC and touched up using *Paint Shop Pro*.

4. Next, a scene is setup using the hand-painted background. The camera movements are set and the animation is moved across the scene – somewhat like filming a scene for a movie.

5. The scene is then rendered to disk at the correct sizes to be used in the game. Finally, it is loaded onto the editor, cut out, and grabbed/compressed for inclusion in the game code.

To complicate matters, every character and background designed for *Pandemonium* had to be sent to Hanna Barbera for authorisation. Considering there are dozens of locations and over 12,000 frames of animation, this must have been a mammoth task.



There are more features beginning to emerge. The game employs 'interactive lighting', for instance, which means many light sources can be switched on or off, or destroyed by the player. This adds an extra element to those frenzied fire fights – one stray shot could plunge the action into absolute darkness.

Furthermore, in one player mode, the player doesn't have to tackle the game alone – his character commands a small unit of computer-controlled marines who communicate with him via an intercom system. They can be dispatched to unexplored areas and will report back if they get into trouble or find something interesting.

One more thing – out of the 20 or so different enemies, one is a huge, fat, middle-aged women in a horrible dress who spits corrosive ectoplasm at you. It's like being attacked by an undead Roseanne Arnold. Just a taster of what to expect…

Indeed, Tribe seem to have a talent for weird ideas. The provisionally-titled *HMS Carnage*, for example, is a 3D flight shoot 'em up set on Mars in an alternate future. Admittedly, that in itself is not particularly weird for the videogames world. However, this alternative future just happens to be a surreal representation of what things may have been like if the Victorians had rejected electricity and stuck with technologies and ideas with which they were already comfortable.

Hence, the surface of Mars is now populated by steam-driven land vehicles and, even better, the skies are filled with elastic band-powered aircraft. Even the inhabitants of the planet have retained all the quirks and mannerisms of their Victorian forefathers. Imagine the works of Jules Verne and HG Wells crossed with Those Magnificent Men in their Flying Machines, Biggles and the William Gibson novel, The







Steam-driven tanks (top) and elastic band-powered aircraft (above). Tribe were not aiming for stark realism when they formulated the concepts behind *HMS Carnage*

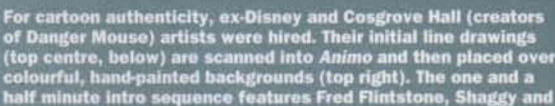
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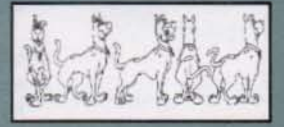






For cartoon authenticity, ex-Disney and Cosgrove Hall (creators of Danger Mouse) artists were hired. Their initial line drawings (top centre, below) are scanned into *Animo* and then placed over colourful, hand-painted backgrounds (top right). The one and a half minute intro sequence features Fred Flintstone, Shaggy and Scooby discovering a haunted house. It's not long before they manage to fall down some stairs (left). The animation for this sequence is amazing





















Despite the restraining limits of Victorian technology, the designers of *HMS Carnage* managed to come up with a huge collection of eccentric vehicles. The 3D engine they inhabit is fast and beautifully smooth



Difference Engine, and you're some way to understanding the look and feel of the title.

In a sense, the bizarre scenario comes out of Tribe's frustration with formulaic American game themes. As team Leader on the project 'Pig' Kershaw points out, 'We wanted to come up with a completely new story, rather than the usual 'Jack, the all-American hero, saves the universe yet again from the hordes of Gribbly', or whatever. Instead, we went for something quintessentially English – basically we took the Victorians, and all the really cool imperial stereotypes, and stuck them on Mars.'

The weirdness doesn't stop there. For once, the baddies are not evil space aliens, but a 'nation of exiled European nobles' called the barons. As Kershaw elaborates, 'All the bad guys are your typically Teutonic, spike-helmeted characters flying around in zeppelins… but they're definitely not German. Oh no… Germany is an important market!'

At the moment the game is little more than a collection of off-the-wall ideas and an accomplished 3D engine. The latter is enough, however, to show off the beautifully drawn, undulating martian landscape and some of the strange hybrid vehicles – including HMS Carnage herself, a massive space-travelling dreadnought. Impressively, aircraft movement is incredibly smooth, despite the detailed, textured backgrounds.

As for inspiration, **Edge** asked where the idea to use Victorian technology came from. 'Look out of the window,' Kershaw replies, staring out at the miles and miles of gloomy Victorian/industrial architecture, 'this is Manchester for fuck's sake!'

Ocean being Ocean, a license had to pop up somewhere, and luckily it's a good one. Through an exclusive deal with cartoon giant, Hanna Barbera, Tribe has acquired the rights to use all of the company's most famous characters, including Fred Flintstone, Scooby Doo and Penelope Pitstop. The result: *Pandemonium*.

Pandemonium is a 2D point-and-click adventure, described by team leader, **Gerald Weatherup**, as a

Continued

fully-fledged interactive cartoon. The storyline is pretty simple: Fred Flintstone, accompanied by the likes of Shaggy and Scooby-Doo, must locate and destroy the evil Dick Dastardly's sound removal machine – a device capable of sucking all the sounds out of cartoon land. As expected, there are dozens of puzzles to solve and, in a style reminiscent of LucasArts' best titles, dozens of FMV sequences to view along the way.

Although little is known about the plot, it is clear much is being done to capture the visual essence of the Hanna Barbera world. Taking advantage of a lull in the cartoon animation employment market, Tribe has been able to recruit animators and artists from companies like Disney and Cosgrove Hall to give *Pandemonium* a cartoon look. Even more impressive is the fact that the game is being created using techniques and technology taken straight from the world of animation (see boxout).

But not content with capturing the correct visuals, Tribe has also acquired Hanna Barbera's sound library which includes, **Edge** has been assured, that weird drum role noise which plays whenever Scooby and Shaggy get scared and run on the spot for a few seconds before skidaddling. The importance of this cannot be overstated.

Furthermore, to completely capture the aural atmosphere of the HB cartoons, Tribe flew to the US and recorded 300 pages of script with the original voice artists responsible for Scooby, Shaggy, etc.

Pandemonium looks wonderful. The two minute intro contains all the knock-about lunacy of an HB cartoon, which bodes well for the game – it at least proves the designers have a feel for the genre. Luckily, earlier ideas to turn *Pandemonium* into some kind of edutainment title have been abandoned. The 'slacker culture' undertones and surreal stupidity of Scooby Doo was completely wasted on children.

Edge has only one grievance with the game so far – Fred Flintstone is the lead character. So what if the film made millions of dollars? – Fred is just a reactionary swine with one-joke (yabbadabbaa... oh sod it). Shaggy, would have made a much more amusing and subtle hero. There's still hope, though. The system behind *Pandemonium* has been designed as a generic 2D point and click engine so it can be used again. Furthermore, Ocean retain the HB license beyond *Pandemonium*.



Pandemonium **features all those classic Hanna Barbera characters, including boorish Fred Flintstone, clueless Scooby Doo and archetypal slacker, Shaggy**

Despite these titles being developed by separate teams within Tribe, they all share the same production values. All three are to be released in scalable incarnations on the PC, meaning that by choosing the appropriate amount of graphical detail, owners of machines from DX-33s to P200s can run the games. Furthermore, all three will eventually find there way onto the Saturn and PlayStation.

As for the future, Turnbull is reticent. 'Unfortunately, our industry operates in a chaotic state – everything is always changing, new 'best ever' consoles are always on the horizon. However, Tribe has been structured around flexible ideals and management philosophy which will allow the team to react quickly to new technology.' He did confirm, though, that two of the 'new technologies' Tribe will be looking into are PC graphics accelerator cards (all of the games looked at support several of the new cards) and internet gaming via services such as BT's *Wireplay*.

One thing is certain, Tribe has spent a lot of time considering the current industry and deciding on the best way to fit in. The titles it is currently working on are a realistic combination of well-known game genres (point and click, first-person shoot 'em up) and innovative storylines and methods. It seems every member of Tribe has the same idea of what must be done, not just by Tribe, but by the industry as a whole, to stay in business. **Mark Ripley**, another Team leader, sums it up. 'Everyone seems to be putting all their effort into producing the flashiest 3D engine at the moment, which is all very well and good, but we need now to put the same amount of resources into producing optimised AI, character and plot generation, and interaction.

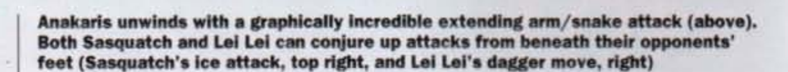
'Furthermore, in order to survive as an industry, we need to attract more of a mainstream audience, without falling into the trap of producing typical arcade, racing, or fighting games. We must avoid churning out the same stuff year after year, like the industry's got away with so far.'

It's a noble sentiment with which **Edge** firmly agrees. 

Night Warriors:
Darkstalkers 2







Anakaris unwinds with a graphically incredible extending arm/snake attack (above). Both Sasquatch and Lei Lei can conjure up attacks from beneath their opponents' feet (Sasquatch's ice attack, top right, and Lei Lei's dagger move, right)

Format:	Saturn
Publisher:	Capcom
Developer:	In-house
Price:	¥5,800 (£40)
Release:	Out now (Jap) May (UK)

Virtua Fighter 2 is the most technically accomplished, brilliantly playable beat 'em up to have appeared on any home format, with flawless polygon characters, scaling backgrounds and thousands of unique moves spread over ten characters. The UK press went wild, a new preview appearing for every development disc sent by Securicor out of the AM2 compound. On UK release it dropped out of the CD charts like a stone. Unlike the Japanese, British gamesplayers did not seem to clutch 3D fighting to their bosom. If Sega was expecting *VF2* sales to match those of Mega Drive *Sonic*, it must have been seriously disappointed.

The trouble (for *VF2*) is that most UK Saturns have gone to Sega diehards of old, the kind of people who have played their Mega Drives to destruction. *VF2* shows 90% of its development in presentation alone, with gameplay remaining very similar to the original. As a generation, Saturn owners grew up with *Mortal Kombat* and *SF II* and, given the choice, it's these types of game they want to play. Capcom knows this and *Night Warriors: Darkstalkers 2* (aka *Vampire Hunter* in Japan) is another opportunistic release before *Ultimate MK* goes ballistic.

The game is the sequel to (the PlayStation only) *Darkstalkers*, adding four new characters to the original ten. Capcom's excellent 2D fighting engine, last seen in *Street Fighter Alpha* and *X-Men*, powers the game and allows it to follow roughly the same format as those illustrious predecessors. All six of the Saturn pad's buttons are used and their effects modified by the relative position of the D-pad. Special (outlandish, more accurately) moves are activated by *Street Fighter II*-style button/pad command combinations, and experts at that game will have no problem firing off lightning bolts and spinning attacks after only a few minutes' play.

The *Street Fighter II* theme continues with the facility to build separate attacks into multiple hit combos, slashing the opposition's health in frighteningly large chunks. On top of this is a special energy bar, located just below the characters' normal energy/life gauge. This





One of the more traditional-looking of *Night Warriors'* 14 characters is the muscle-bound Victor, although even he has arms and legs prone to unfeasible extension



The Pharaoh-like Anakaris is quite easily the most bizarre character, with strange flying attacks and the ability to drop huge coffins on his opponent from apparently out of nowhere

builds up gradually through a bout and, when at a sufficient level, allows super moves to be executed. These have enormous destructive force and a pleasantly unrealistic exuberance.

So another bog-standard *SFII* clone? On the technical front, maybe, but in terms of looks and personality, *Night Warriors* is more than the sum of its pre-used parts. *Street Fighter II* always took itself too seriously – those sombre taunts at the end of each bout being a notable teeth-grinder. *X-Men* rectified this a tad, but it was really only the *MK* series that could claim a sense of humour. If 'madcap' was not on **Edge**'s list of least wanted adjectives, it might find itself in close proximity to *Night Warriors*.





Zabel bursts into a ball of green flames with only the slightest provocation (top). Pyron also has problems with combustion (bottom)

Of the 14 playable characters there are, of course, the must-have clichés of most beat 'em ups – the muscled superman in tights, the unfeasibly-breasted woman, and the man mountain Sagat-alike. For the rest, anything goes. Anakaris is a sarcophagus-based Egyptian character who likes to jump on his opponent and lock them inside himself. Sasquatch is a squat, Star Wars-esque rodent type with enormous extendable feet and Pyron has great difficulty not bursting into flames at the least provocation. Most characters' special moves are genuinely surprising and carried off with amusing excess. It's not just the winning here, it's the winning with style.

The Saturn's excellent sprite capabilities are now beyond doubt and *Night Warriors* makes best use of them. While characters are not as large as *X-Men*'s, movement is fluid and free from slowdown, even when the screen is at its most crowded. Welcome changes from the coin-op include eight difficulty settings – anything from inordinately easy to ridiculously hard – and a shortcut mode to ease the passage through the oneplayer championship. There are no other embellishments, however, and whether this represents arcade purity or laziness is probably a matter of opinion.

In conceptual terms *Night Warriors* is not an original game, not by a very long stroke of the designer's pencil. But its design – 14 varied characters getting up to 14 different shades of special move nonsense – and its execution – high quality, fluid animation in front of beautifully detailed backgrounds – leave little to be desired. Those predicting an early demise for the 2D beat 'em up were naive. A huge market still exists for this type of game and, given its quality, it looks certain *Night Warriors* can tap into it.

Edge rating: **Eight** out of **ten**





For the beat 'em up purist points are awarded for general fighting style as well as making the first hit

Terra Nova





Explosions rip through the grass as ion rifle fire streaks across your field of view (left). Two of your three team mates stand in front of you (right). The effective use of squad members is vital to your success – you control where they move, how they attack and how aggressive they are

Format:	PC CD-ROM
Publisher:	Virgin/ Looking Glass
Developer:	Looking Glass
Price:	£45
Release:	Out now

It is perhaps ironic that *Terra Nova* is released in the same month the hardware necessary to play Looking Glass's previous game, *Flight Unlimited* is becoming widespread. There's no doubt the Boston firm caters for the most powered-up PC owners, just as it's certain if you have the required kit you're in for a treat.

In *Terra Nova*'s case the demands on your poor £500 CPU are more extreme than usual. A P133 will labour when pushed into SVGA mode and even a nippy P100 will experience minor slowdown problems during the most frantic VGA fire-fights. As *Terra Nova* involves armed bands of armoured-suit-clad humans roaming the countryside, there are a fair few violent encounters. But this technical limitation is just about the only weakness evident throughout the entire game and arguably even has an upside. The graphical fidelity the engine allows produces an incredibly immersive gaming environment upon which to build. All the scenarios draw to the horizon with no mist, the sky contains up to four layers of parallax scrolling plus weather effects like rain and snow, and the water casts true realtime reflections. The physics model governing movement is so accurate that slopes, weapon recoil, enemy fire and different gravities affect movement to what seems like the perfect degree.





The control panels (above) can be altered. Don't even think about the external views unless you own a P133

The game's playing strengths stem from the finely balanced combination of action and strategy. In fact, *Terra Nova* is essentially *System Shock: Outside*, and when playing some scenarios certain elements seem similar to the Origin/Looking Glass tactical 3D adventure. The targeting lines and boxes, the explosions, and the general feel of the action are recognisable, but as you progress further into *Terra Nova* it develops a character of its own. For each mission there is a set of objectives to be completed before the dropship lands and flies you back to the safety of the base. The missions vary from easy to ludicrously hard (in the case of the final task) but the splendid, constant theme throughout is that there is no right or wrong way to complete them, and they are not all mindlessly offense-weighted. The Scout, Standard and Heavy Powered Battle Armour (PBA) suits, which are



The different scenarios have distinct gravities that affect the ranges of projectile weapons

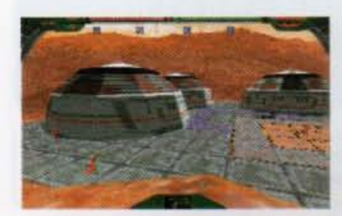






Full screen mode is by far the best way to play the game. The realtime reflections shimmer on the water and the clouds roll overhead with their layers of parallax

available to you from near the start, all have complicated varied attributes but, apart from during the heaviest battles, success can be achieved via numerous methods. This develops the highly desirable attributes of re-playability, experimentation and thinking before engaging in battle. It's supported by the gradual introduction of new technologies that make for an even more varied game.









(Left to right) One of the bases you have to take out. A mission in which you have to sweep through a village protecting citizens from a hegemony attack. Close enemies look blocky in VGA but are still lethal. The arm-mounted laser is your basic weapon and useful to begin with

Undoubtedly what allows these attributes to develop to their maximum potential is the control system and the interface. Given the extensive number of keys needed to move around effectively they are remarkably intuitive to get to grips with and the opening tutorial helps provide confidence from the start. Add to this the mouse to perform secondary, more tactical tasks such as targeting enemies, directing your three intelligent fellow squad members off into battle, or launching reconnaissance drones, and it's surprising the whole game doesn't become completely unplayable. The amount of data available is vast, but when access is required it's easily and quickly available. It's possible to look around while engaging your third jump jet boost, switch weapons, target an enemy and blow him away before you've landed. The battles themselves are tense, difficult, and huge fun, with numerous excellent weapons adding still further to the tactical side. The combination of all the elements leads to a very rewarding feeling when in combat, and one that doesn't fade away quickly. The only gripe is the lack of a multi-player option in the game, although Looking Glass promise this option will arrive later this year.

Then there is the storyline, which for once is deserving of a mention. This is not just because all 39 missions have an unusually strong cohesiveness and credible underlying theme but also for the fact that it gives a lesson to most companies on 'How To Use Pre-rendered Sequences'. It's the 23rd century (again) and you are heading up a crack special operations force to thwart the oppressive Earth hegemony's attempts to re-capture your independent homeworld. The missions see you fighting off pirates, discovering a plot, and eventually taking the fight back to the aggressors. Between each there are 30 second plot clips and mission briefings loaded with intentionally corny lines that inform, amuse, but never bore – a characteristic of the entire product.

In the space of a couple of years Looking Glass has metamorphosed from one of the industry's secret technology powerhouses to a hugely respected developer in its own right. Behind-the-scenes successes with *Ultima Underworld* and *System Shock* have been augmented with the likes of *Flight Unlimited* and *Terra Nova*, and these can only enhance this growing reputation. **E**

Edge rating: **Nine** out of **ten**







All the ground scarring (top) is remembered through a mission. The remains of a PBA (middle). Clustered spherical explosions frequently fill your entire view (above)

Civilization 2





The isometric game map (left) is much prettier than the old 2D affair. FMV is also used. The effect of Darwin's Voyage (above) is shown to the player with the help of two silhouetted giraffes

Format:	PC
Publisher:	Microprose
Developer:	In-house
Price:	£45
Release:	May
Origin:	US





A system of menus (above) covers the game map (top) when decisions have to be made or news arrives

Adored by PC owners worldwide, Sid Meier's *Civilization* was undisputably a masterpiece. Never before had a game offered such depth, diversity and longevity. Never before, and, some said, never again.

But *Civilization 2* manages to take its predecessor's sturdy foundations and fashion a game around them that overshadows the original in every way – without any major changes to the intuitive or addictive gameplay. It's quite simply an astonishing achievement.

The new, improved graphics are inevitably the first thing players will notice about *Civ 2*. A marvellously detailed isometric world map replaces the old 2D display and the game benefits much as a result. Ground features such as hills and plains are clearer and more conspicuous, and the whole thing just looks more interesting in this new angle. There's also a zoom function which is pretty useful, allowing the player to get up close in battle situations, but move out to consider great expanses of the map if the time has come to find a new corner to conquer.

But this is just the beginning of the story. Hiding beneath the aesthetic improvements are hundreds of gameplay additions which are way too numerous to go into in any great depth. Most importantly, dozens of new military units, scientific discoveries, civic improvements and wonders of the world have been added to the basic *Civ* itinerary, meaning even veterans of the original will have a lot to learn in this detailed new world. For example, you can now develop sewer systems, harbours (to increase coastal activity) and stock exchanges (to accompany banking), you can train spies, explorers and engineers, and – in terms of new military units – there are, amongst others, elephant units, marines and dragoons. All of these interconnect to provide an exhaustive evolutionary pattern, replacing some of *Civ*'s rather jumpy advances (in the original, the technology seemed to skip from the early middle ages to the late renaissance in a couple of moves).

As well as adding brand new features, elements retained from the original have often been altered to bring them into line with the complexity of the new world. For example,



A council meeting. Each of these people represents a facet of the player's government. Elvis Presley (far right) makes a marvellous MP

many of the rules concerning governments (always one of the most difficult elements of the game to get right) have been altered. Democracies and republics can now support units placed in fortresses within three squares of a friendly city, without their absence causing civil unrest. This is invaluable for defence, but remember – opponents can do it too.

Thankfully, the old *Civ* humour has been retained and there's often a slight tongue-in-cheek feel about the game. For example, it is now possible for players to consult their council and talk to scientific, military and even attitude advisors. These advisors are represented as digitised images who constantly bicker with each other and always consider their own areas of interest the most important. The attitude advisor is a poor Elvis impersonator – a great touch. Best of all, though, are the discussions with foreign diplomats – where your responses to their threats can go from the resentful to the completely childish ('consequences schmonsequences' being one possible retort).

On a more tactically relevant front, a lot has been done to improve the diplomacy aspect of the game. Discussions between emissaries have become more complex, rivals are more intelligent and peace treaties must be talked about in a long term way ('we have prepared a *permanent* treaty confirming the friendship between our two peoples and fixing our mutual borders for *all time*' – roughly translates into 'don't make a treaty with us just in order to buy time while you build a massive army to crush us').

Which brings in the only complaint – although the game seeks to encourage the player to take treaties seriously, it is still very difficult to avoid getting into fights with your neighbours, mainly because of the old rule about units not being able to pass within one square of each other. Peace would be a more stable commodity if this rule applied only to units representing a country with whom the player is at war. As it is, sometimes it's necessary to break a treaty simply to get to a new piece of land. However, this is a minor complaint – if the player is lucky, these loggerheads can be avoided.

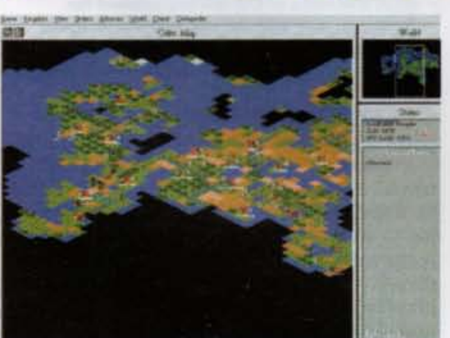
Despite the title's general excellence, there are, of course, dozens more things the designers could have done with *Civilization 2* (a complex UN option would have been good, as would the ability to make lots of money quickly, in illegal ways), but they had to draw the line somewhere. Luckily they've drawn it at the point where the game isn't a pointlessly radicle departure from the original, but is still a significant improvement.

For a long-term challenge which changes every time a game is begun, *Civ 2* cannot be more highly recommended. Even for those who can finish *Civ* on its highest skill level, there will be enough here to rekindle their interest.

Of course, *Civ 2* uncovers one major issue: when games like this are released, it makes it so much more difficult to put up with all the pitiful garbage that masquerades as interactive entertainment. Those who have spent the last few years developing dismal Hollywood-inspired FMV fests should shrivel with embarrassment.

Edge rating: **Nine** out of **ten**







The info screen (top) is important to the running of each city. The new zoom function (middle and bottom) helps for focusing on specific areas





Many of *Civ*'s asides, including the discussion and palace screens, have been graphically improved

Spycraft

Format:	PC CD-ROM
Publisher:	Activision
Developer:	In-house
Price:	£44.99
Release:	Out now

Mark Hamill isn't in *Spycraft*: the first clue that this FMV-rich action adventure title may not be, as so many previous games in this genre have been, a wretched, unentertaining failure.

In fact, taken purely as an interactive movie, *Spycraft* works excellently – the video sequences which link each playable section are well produced and, something totally new, well acted. Right from the marvellous opening titles, the whole game has the sheen and production values of a Tom Clancy film adaptation. Wherever the camera turns, there are serious-looking people talking about national security, intercepting enemy intelligence and saying things like, 'It's my ass on the line here!' Which has to be a good thing.

Progress is most often made through the use of various CIA technologies. For example, early on, the player must discover who shot a Russian presidential candidate in a crowded square. This isn't done by physically going to the crime scene – instead, a video of the event is combined with a 3D model of the square to isolate the bullet trajectory and follow it back to the assassin.

For much of the adventure, players are immersed in a kind of synthetic techno world where they must constantly move from high-tech gadget display, to FMV sequence, to high-tech gadget display. In a sense, this makes for an interesting game. The puzzles based around the gadgets are frequently absorbing and the insight they give into CIA practices is fascinating. If all this stuff is based on fact, don't be surprised if there's a government agent somewhere who knows your shoe size.

However, the sheer diversity of *Spycraft* can let it down. Activision have boasted about its ambitions to cover all aspects of CIA life, but to allow this the game is an almost totally linear experience – you constantly feel as though you are being prodded by an impatient designer who cannot wait to show the next neat technology lifted from the CIA.

Having said that, *Spycraft* is a thought-provoking and addictive game. For once it seems the designers of an interactive movie actually care about the project – there's just so much to do. Furthermore, there is the internet link up (where it's possible to chat to other players all over the world) and the promised inclusion of real-life events to add to an itinerary of interesting, compelling features. Activision has to be applauded for their breadth of vision – for doing some things which just haven't been done before. Luckily, there are some marvellous game elements in there as well.







This gory assasination (top) prompts your first CIA mission. Your superiors (bottom) look concerned





Most elements of CIA life are catered for. Doctoring photographs (top), and identifying felons (above) is all part of a day's work







Players receive information from a laptop Interlink device which beams them orders from all over the world. Luckily, William Colby, ex-head of the CIA (top left) is on your side

Edge rating: **Eight** out of **ten**

In the intense battle for arcade supremacy, Namco strikes an offensive blow with the System 11-powered *Soul Edge*, a weapon-laden beat 'em up set in the late middle ages

Soul **Edge**



One of *Soul Edge*'s more spectacular graphical features is the blinding spark that appears as a consequence of two weapons clashing

Namco's creative centre in Shin-Urashima, a suburb of Yokohama, Japan

Developer: **Namco**
Release date: **Out now**
Origin: **Japan**

S*oul Edge*, Namco's latest and most ambitious System 11 project, recently made its debut in UK arcades to a mixed response. Running at 30 frames per second, its less immediately impressive appearance accounts for it failing to meet the expectation of those familiar with its precursor, *Tekken 2*. There's more to it than looks, of course, and upon further inspection the game reveals itself to be a worthy expansion upon the foundations laid down by 3D beat 'em ups that have gone before.

A total of 25 people were involved in the game's creation – four programmers, 14 designers and two sound engineers – and at Namco's creative centre in Shin-Urashima, a suburban district of Yokohama, **Edge** talked to two of them: manager of development, **Hajime Nakatani** (who also played a part in the creation of *Tekken* and its sequel), and assistant manager, **Masuya Ohishi**.

Edge What had the development team worked on before? Were they involved with *Tekken*?

MO No, the team was different. At the time *Soul Edge* was developed, the *Tekken* team was working on the PlayStation version of *Tekken 2* so they couldn't be involved. However, during the development process, around three staff from *Tekken* joined the *Soul Edge* team.

HN The *Soul Edge* team was gathered from different backgrounds. After *Soul Edge* the team may be broken up with some members moving onto console games in different parties. Our team wasn't specialised in fighting games, because *Soul Edge* and *Tekken* were the first fighting games Namco did.

Edge How did you come up with the concept for the game?





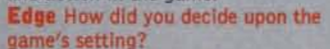
Work on *Soul Edge* began in September 1994, just before the PlayStation came to market. Its System 11 hardware origins were, according to Namco, brought about purely by the format's low cost



MO Our first thoughts were to make a game in the tradition of *Tekken*, but we also wanted to develop quite a different game. There are many fighting games that use weapons but not so many do it in 3D. We thought we could make the game look different if we included weapons.

Edge Do you think *Soul Edge* can be compared to *Toshinden*, another weapons-based beat 'em up?

MO Yes, it's possible to compare the two games, but *Soul Edge* is still different. As you can see from the game itself, the quality of *Soul Edge* is much better! Our characters use very different weapons than those in *Toshinden* and we've used complex programming techniques to make the weapons look real. If we consider the game content, the impact between weapon and player, or two weapons, is very different, for example. When two swords are banging each other you can see some impressive effects. During a fight, it's also possible to remain in the guard position and push the enemy when two weapons have clashed together – this can be done with a special button sequence. *Soul Edge* also uses the entire screen depth, like in *Toshinden*, and characters are also able to step aside or roll to the side to avoid an attack, and then attack again – this technique will stress the speed and action in the game.



Edge How did you decide upon the game's setting?

MO The game takes place in the 16th century, which was the decision of the game's director.

HN Our early intention was to use weapons in the game, so we simply thought this era would have been very convenient to justify their use. A story taking place in this era sounds normal – it wouldn't have sounded realistic if it took place in modern times.

Edge What was the most difficult part in producing the game?

MO The game's setting was the most tricky to capture. It was also very difficult to refine the characters' motion, which is a very important element of a 3D game. We had trouble deciding upon the characters' special moves, and it was difficult to match a technique to a particular character. In fact, the setting of all these parameters were the most difficult parts to realise!

Edge Did you use motion capture techniques for the fighters?

HN We used some motion capture techniques, but there were cases when the action required was beyond what a real human is capable of, so we had to work out some of the motion manually.

Edge How difficult is it to produce a conversion from System 11 to the PlayStation?

HN Depending on the type of game, the conversion time differs. For *Tekken*, the graphical data had to be compressed, otherwise the conversion would have been extremely complicated. For *Soul Edge*, because the game's graphics are a very important element, even more so than with *Tekken*, the conversion would be much harder to do. So we have to convert the coin-op by programming it from scratch. The conversion isn't going to be easy. Usually it takes a maximum of six months, but different factors some into play, such as the game and the team involved.

Edge What do you think about your potential competitors, Sega's ST-V and Capcom's new graphics board?

HN I do not know exactly, but our board seems to be better than Capcom's. Concerning the ST-V board, it seems to have different strengths than ours – the textures, for example, are very impressive [because of the ST-V's greater RAM] – but it's not as good as the System 11 board when it comes to managing polygons.

MO It would certainly be difficult to make a game such as *Soul Edge* on the ST-V board because of the immense number of polygons needed. That's where our board excels. E



Ohishi-san claims that each character is made up of between 850 and 900 polygons. Their complexity calls for a trade off in frame rate

Sonic/Kids confusion

Contrary to what was reported last month, Sega's new beat 'em up, *Virtua Kids* runs on ST-V hardware, unlike *Sonic The Fighters*, which uses the higher spec Model 2 board.

Sega has yet to decide whether the coin-ops will be released outside Japan, but, because of the nature of its hardware, a Saturn conversion of *Kids* looks highly likely.





Nakatani-san (top) and Ohishi-san (above) – *Soul Edge*'s creators

retroview

The runaway retro bandwagon seems unstoppable as Namco, Williams and Atari resurrect old favourites to cash in on games players' sentimentalism

Williams Arcade's Greatest Hits

Format:	PlayStation
Publisher:	Williams
Developer:	Digital Eclipse
Released:	May
Origin:	US





Williams' history

Williams Arcade's Greatest Hits' 'media gallery' will prove fascinating to coin-op connoisseurs who've been around the block a few times. Here, you can view interviews with designers such as R J Mical (top), examine old game adverts and PR materials – even pin tables such as *Joust* (above) – and cast an eye over screen shots of rare games such as *Joust 2*, which was never actually released.

PlayStation owners who've found Namco's recent compilations of old games not to their liking will soon be able to sample the delights of Williams' efforts in the form of a six-game pack featuring *Defender*, *Defender II* (aka *StarGate*), *Robotron 2084*, *Joust*, *Sinistar* and *Bubbles*.

Like Namco's *Museum Piece* packages, this Williams compilation – which appeared on the PC to some acclaim earlier this year – emulates the actual coin-op hardware rather than attempting mere interpretations of the originals. Which means, of course, all of the coin-op bugs remain intact, the soundtracks are faithfully authentic and, most importantly, the games retain their fantastically challenging nature, making today's 32bit releases look soft by comparison.

Of the six, *Defender* (from 1980) and its sequel (1981) make up the most critically acclaimed portion and demonstrate Williams' golden – if short-lived – era perfectly, with expertly-honed gameplay and depth that belies their simplistic graphics. Eugene Jarvis' *Robotron 2084* (1983) remains one of the most intense videogame experiences of all time and works surprisingly well with a standard PlayStation joypad (the diamond button cluster performing the function of the coin-op's second joystick), while *Joust* (1982) – remarkable in its day for not allowing the player to shoot in an environment which seemed to demand it – is equally rewarding. *Sinistar* (1982), however, proves testing to the point of frustration – its high difficulty setting will repel all but the most hardcore gamer. Finally, having earned relatively little recognition upon its limited release in 1982, *Bubbles* is the runt of the litter, its simplistic collect-and-dodge gameplay demonstrating exactly why it failed to match its peers in carving a noteworthy niche in videogame lore.

Defender **(left) and its sequel (above) have many subtle (and some not so subtle) differences. Both are tricky**

Accompanying the games is a 'media gallery' section (providing rare game-related paraphernalia), detailed information concerning each game's origins (where you can discover the bulk of *Robotron 2084* was programmed in an astonishing four days) and video clips of interviews with a number of designers, notably R J Mical who, after contributing to *Sinistar*, went on to co-found Amiga computers, design Atari's Lynx and develop 3DO's software technology.

What this package chiefly demonstrates is not that old games are better than those produced today, but certainly that they are harder. Those weaned on the likes of *Clockwork Knight*, therefore, should approach with caution.





The evil Sinistar in the game of the same name (top). Like *Pac-Man*, *Bubbles* (above left) has only directional controls. *Robotron 2084* (far left) and *Joust* (above right) have aged well

Namco Classic Collection 2





New modes in *Rally-X* (left) and *Dig Dug* (right) offer tweaked gameplay and all-new visuals

The success of Namco's *Classic Collection Volume 1* coin-op has spawned the release of a second installment, offering *Dig Dug*, *Pac-Man* and *Rally-X*. Here, too, nineties updates, with revamped graphics and full soundtracks, sit alongside faithful versions of originals. Of the three games, *Pac-Man* and *Rally-X* will already be familiar to PlayStation owners au fait with Namco's *Museum Piece* volumes one and two, while *Dig Dug* is likely to be known only to veteran arcade goers or those familiar with the popular console versions from the eighties. Essentially a mix of *Mr Do* and *Boulderdash*, your explorer digs underground passages, hunting out baddies which he inflates in an amusing fashion by means of a pump. While not quite in the same league as *Pac-Man* (but then what is?), *Dig Dug* is nevertheless straightforward, addictive stuff to complete the trio in fine style.

Strangely, the company currently has no plans to convert these System 11 games to the PlayStation, although the strength of these coin-op remixes will no doubt garner a cult following in Japan. Namco has recently decided to release the *Classic* coin-ops here, too, giving UK gamers a chance to fall in love with them all over again.

Format:	Arcade
Publisher:	Namco
Developer:	In-house
Released:	Out now (Jap)
Origin:	Japan



Pac-Man's levels now undulate, but the core gameplay doesn't change

Atari re-enters retro race

It's difficult to believe that two whole decades have passed since Atari stormed arcades the world over with its second big bat 'n' ball game (after *Pong*), but it was indeed 1976 when the simplistic yet addictive *Breakout* premiered.

This 20-year anniversary sees the troubled giant about to release a Jaguar update in the style of its biggest Jag hit to date, *Tempest 2000*. Featuring two modes, the 'classic' version serves merely to illustrate just how undemanding videogames were in the seventies (was it really *this* grim?), while the new '2000' mode, despite presenting a pseudo-3D playing field, power-ups and a simultaneous two player option, provides little gameplay thrills beyond those offered by Taito's unofficial *Breakout* update of 1986, *Arkanoid*.





The big difference in *Breakout 2000*'s new mode (top) is the opportunity for two player games

Answering Atari's retro roll call is *Missile Command 3D*, a game originally programmed by VR pioneers, Virtuality, to work with its shelved Jaguar headset. Three modes are present: 'Virtual' (which presents your six bases in a cross-type fashion in a full 3D playing area), '3D' (simply a polygon version of the straight game) and 'Original'.

Because it's an interpretation (rather than a Williams/Namco-style emulation) the latter option's accuracy is slightly wide of the mark. And, playing with a joypad is never going to match the full coin-op trackball experience.

Although the two games were no doubt obvious choices for Atari to resurrect, a quick scan over the company's later releases is all that's required to spot some more worthy updates. So, Atari, how about '2000' versions of *Marble Madness*, *Gauntlet*, *APB*, *Super Sprint*, *720°*...

Format:	Jaguar
Publisher:	Atari
Developer:	In-house
Released:	Out now (*MC*) July (*B2000*)
Origin:	US/UK





The three *Missile Command* modes in action (from top): 'Original', '3D' and 'Virtual'. All play similarly



Express yourself in **Edge**. Write to: **Edge** letters, 30 Monmouth Street, Bath, Avon BA1 2BW

As the launch of the Nintendo 64 approaches, I see this machine as the gamesplayer's saviour. Having owned both Saturn and PlayStation I've been disappointed by the games, which have little depth to them.

I remember getting a Super Famicom when it was launched with *F-Zero*. This game excited me more than anything I had seen before, and if Nintendo can release two great titles with the launch of N64 they will repeat the success of the SFC. Luckily for them they have Mr Miyamoto – he will be a key player in Nintendo's success.

One last point – look out for the crazy import prices when the Nintendo 64 arrives – I paid £650 for an imported Saturn. Never again.

M Docherty, Sunderland

Nintendo's in-house development resources are perhaps its biggest strength, and it is naturally easier to put faith in it delivering triple-A software titles than any other software manufacturer. Which bodes well for Nintendo64's chances, of course. What might be a problem is maintaining a steady supply of releases. Nintendo's in-house quality control is notoriously stringent – making for delays at best and cancellations at worst – and lack of software choice might deter a certain sector of consumers from buying the machine.

Regarding 'crazy import prices', the situation will continue so long as there are gamers out there committed to buying the very latest kit. The import climate is completely market-driven, and ultimately you have the likes of yourself to thank for machines arriving with the accompaniment of unpleasantly weighty price tags.

M Docherty thinks N64's fertile lineup, such as *Pilotwings 64* (above), will save videogaming from a slew of unoriginal coin-op conversions

I am sick and tired of hearing about Shigeru Miyamoto! When will the press wake up and realise he is a *producer*! He is not a games designer, an artist, or a programmer. He is a producer, yet the press, time and time again, gives him the credit for nearly all of Nintendo's success.

Take a look at the movies. Do you give Gary Kurtz the credit for Star Wars? No, it goes to George Lucas. Do you give Gale Anne Hurd the credit for Terminator? No, it goes to James Cameron, the director. Etc. So why do you give Shigeru Miyamoto the credit for all of Nintendo's games? In your latest interview he said himself that he is working on ten projects at once. Ten projects a year would mean he could spend no more than five weeks per project. Most videogames take 500 or more man weeks to complete – if Mr Miyamoto can only spend five out of a total 500, that, to me, points to other people as having more to do with the quality, design and



Is Shigeru Miyamoto the genius Edge portrays him as? Gregg Tavares thinks, rather, he is a man in charge of unsung programming heroes

implementation of those titles.

How about giving the teams the credit they deserve. If we were to follow the movie model, *Yoshi's Island* was directed by Takashi Tezuka, Toshihiko Nakago, Shigesumi Hino and Hideki Konno. *Zelda III* was directed by Takashi Tezuka also. *Star Fox* was directed by Katsuka Eguchi and *Mario Kart* was directed by Tadashi Sugiyama and Hideki Konno.

Mr Miyamoto is an awesome producer, there is little doubt about that. No other game producer has as many hit titles, but a producer is not the creative force behind a game. Those people are the designers, artists, programmers and musicians that make the game.

Please interview those people. Please give credit where credit is due. There is nothing more upsetting than to have someone else take credit for your work. Many good people have left companies simply because others in the same company were getting credit for their work.

Gregg Tavares,
greggt@sieben.com

Perhaps Gale Ann Hurd and the others you mention would be as well known in their field as Shigero Miyamoto if they had contributed to as many incredibly successful projects. But that's irrelevant: Shigeru Miyamoto's first dabblings with videogames at Nintendo involved design – he conceived Mario when he created *Donkey Kong* in 1981 and he has held a designing role in projects since.

In more recent years his involvement has become less hands-on than it was in the days of titles like *Super Mario Bros.*, and his experience and talent has been recognised by his progression within Nintendo's internal hierarchy.

Nintendo is aware that the association of the Miyamoto name with any of its games is an immediate credibility boost for the title in question, regardless of the actual level of input he offers, so it's little surprise he has been assigned a production capacity on ten Nintendo64 releases.

There are unsung heroes working in every industry, and **Edge** already has firm plans to delve deeper into Nintendo's organisation when the Nintendo 64 launches.

Being the owner of a PlayStation RGB SCART cable I am now able to enjoy the incredible benefit of playing Japanese/US-sourced games in 60 glorious Hz courtesy of the non-damaging CD audio swap-over trick.

Judging by the demand for these cables, I'm not the only one who doesn't like squashy, slow games. As the actual game code only occupies a tiny percentage of a CD, why don't Sony release the NTSC 'un-optimised' original version of a game on the same disc as the PAL version?



James Stopps says next generation games are tedious piffle. But will he change his opinion once titles like *Final Fantasy VII* (above) appear?

A few deft/daft key presses during the boot-up sequence could instruct PlayStation to boot from a different section of disc containing the 60Hz code.

Come on Sony, give us the chance and the choice to play full size, full speed games as they should be. You never know, it may even put a few of those grey importers out of business if the official European release of *Ridge Racer Revolution* can be played at 60Hz.

Clive Sewell,
cps@biw.co.uk

There's no technical reason why 50Hz and 60Hz versions could not be supplied on the same disk (providing there's enough space, obviously) – it's ultimately a question of Sony policy and it doesn't look likely to change. Having said that, however, **Edge** understands that at one point a 'two-in-one' format was considered for *Wipeout* but the plan was scrapped.

A number of games are currently being written specifically with the UK's 625-line television standard in mind, which should go part way to addressing the 'squashed screen' dilemma that many PlayStation owners are currently having to bare.

Next generation – shmext generation. When was the last time you played a game so good that everything else in life became an annoying distraction? When did you last look at your watch a few hours into a game and realise an entire day had slipped by? Huge advances have been made recently in gaming technology, but what have we game fans got to show for it? Okay, we now have faithful console versions of state-of-the-art coin-ops: *Ridge Racer*, *Tekken*, *Sega Rally*, *VF2*. All are technically impressive and visually stunning, and not something I thought I'd see on my TV set for a while. But after a few hours they lose their appeal. In fact, I've yet to play a next generation game for more than a day (whereas *Yoshi's Island* on my humble SNES kept me happy for three weeks).

With Sega and Sony seemingly oblivious to what makes a good console title, and Nintendo constantly pushing back the release date for its new machine, I'm afraid to say I think 1996 looks to be a pretty barren year in terms of games. Wake me up in 1997.

James Stopps,
Hatch Warren, Basingstoke

The titles you mention do not represent a fair appraisal of 32bit console gaming. Because they were originally designed as coin-ops they're ideally suited to playing for around a few hours at a time and do not even attempt to deliver the same kind of experience offered by a Nintendo title like *Yoshi's Island*. Which isn't to say they're inferior games, just different – there are thousands of gamers who would find an afternoon with a 'quick turnaround' title like *VF2* infinitely more preferable to one spent playing a drawn-out Nintendo game.

It's certainly true that originality is currently scarce in 32bit games, with the most popular titles (*Doom*, *Street Fighter Alpha*, etc) proving to be conversions from other formats. Original, machine-specific games *are* being produced, of course – especially in Japan – and the likes of *Final Fantasy VII* (PlayStation) and *Dark Saviour* (Saturn) are the sort of titles you'll be looking for as a fan of absorbing, immersive games. You'll just have to wait for them...

Playability is a quality often associated with 16bit console games like the *Mario* series. In some respects those are fine games, but personally I find them, and almost all 16bit console games, very boring. What these machines are missing are games which create a believable world with computer-controlled characters which also act when not in the vicinity of the player.

It has always been possible to make games with such qualities but there have been far too few of them. To some degree, *Defender* can be held as a prime example – the scrolling is player-controlled and the aliens not only move when out of the screen, they are actually acting (capturing humans).

To me, qualities like these – not the size of the game world – are essential for the depth of a game. Without them, the illusion of being part of another reality is shattered, despite all efforts in other areas of game design.

Good examples of these qualities are found in some 8bit computer games, like Argus Press' *The Detective* for the C64 and Ocean's *The Great Escape*. Both these games have a rather limited playing area which,

Continued next page

viewpoint

considering the capacity of those machines, was necessary. However, this may add to the atmosphere. Isolated hotels, running trains, islands and spaceships light years away from home – they all provide ideal settings for atmospheric dramas.

Many early adventures did, to some extent, succeed in giving the impression of living characters – Infocom's games and Melbourne House's classic, *The Hobbit*, whose sole merit (well almost) was the computer-controlled characters with whom you could interact. For the 16bit computers, Millennium's *Robin Hood* deserves a mention. Thanks to the successfully made-up miniature world it could be played in many ways.

Too many games compensate in this area. To me, a game is ruined if a computer-controlled character freezes when not in the area of the player. The suspense of knowing things happen out of view gives the time dimension a totally new role in game playing (well illustrated by Magnetic Scrolls' text adventure, *Corruption*). This allows for many new ways of problem construction far away from the ordinary and tedious 'where to use an object'.

So far the 32bit consoles have been a huge disappointment, with few, if any, games with the qualities described. The racing games, though, have been superb, but why-oh-why do the computer-controlled vehicles not run independently and why do they continue racing after having finished the set number of laps?

These qualities are, in a way, intimately dependent of processor speed and artificial intelligence, but neither has to be very high to provide a good impression by today's standard. I, myself, have a lot of ideas which could easily be realised on an 8bit computer, and in my opinion those games would be miles ahead of most existing titles.

Anders Hansson, Lund, Sweden

You make some fair points. Artificial intelligence is certainly an area of videogame design which deserves attention, and there will undoubtedly be significant advances made in the next few years to make game environments more convincing and believable. At present, however, the processing power offered by 32bit formats is typically spent first on creating the visual components of the game equation, with aspects such as believability of the game world an afterthought.

As you correctly note, hardware capability is a limiting factor, and your wishes are rather pie in the sky at present – a version of *Zelda III*, with every game character behaving independently in the manner you suggest, for example, is far from a practical coding scenario.

There's also the argument which suggests games are not meant to mirror real life: they are *games*, just another form of entertainment.

Edge's almost unqualified support for Sony's PlayStation is, if not misplaced, highly amusing. The computer press has a tendency to back the wrong horse simply because magazines form part of the 'hype machine' that heralds the launch of a new system.

The now defunct New Computer Express predicted success for the Amstrad GX4000. Even the usually conservative American Electronic Gaming Monthly stated about 3DO, '...with the backing of powerful groups such as Time Warner Interactive and Matsushita it will succeed.' **Edge** itself even claimed Sony may replace Nintendo as the world's number one videogames company (I think not).

Sony's track record is highly questionable. The Betamax comparison is hardly fair but what about Sony's handling and launch of its recent MiniDisc product? After a couple of weeks, Sony seemed to have lost interest. Even Sony's own high street stores no longer stock MiniDisc product.

Sega have a combined global Saturn userbase which is greater than PlayStation's. Sega exist because, arguably, they make the best arcade videogames in the world. Conversely, Nintendo are huge because they make the best home videogames in the world. Can Sony maintain a market without the infamous hardware leapfrogging made by 3DO?

Sega's alliance-to-be with Panasonic may or may not work but Sony's former 'alliance' with Nintendo didn't. If, however, Sega concentrated on their arcade division and licensed their games to Nintendo for its 64bit machine, consumers would have an unbeatable combination of the best arcade and home videogames in the world.

Anon, Leicester

The PlayStation's success (as demonstrated by worldwide retail sales in excess of $2 billion) hardly makes **Edge**'s support of the format 'unqualified'. The machine has, in just about every area, performed as well as was predicted.

To attempt to draw parallels between Sony's machine and the GX4000 is simply ridiculous, but your point about the MiniDisc system has worth – while it has enjoyed some success in the States, it has indeed bombed in this country. Comparisons to PlayStation cannot be fairly drawn, however – Sony's entry into the videogames market has been branded its most important product since the Walkman, currently commanding more support than any other in its hardware catalogue.

Sony must now encourage original software for the format in order to compete with Nintendo when N64 finally launches.

I would like to put forward a recommendation concerning *Daytona USA*. Sega's current batch of Saturn titles – *Virtua Fighter 2*, *Sega Rally*, and *Thunderstorm 2* have all proved the power of Saturn, so I think the company should seriously consider reprogramming *Daytona USA* as a Remix version. This has done wonders for *Virtua Fighter*, so why not *Daytona*? The original *Daytona* was a shabby conversion, and was the reason why a lot of people opted for PlayStation over Saturn. During the conflict between the two companies Sega decided to release their machine early, an advantage until the arrival of *Ridge Racer* and *Wipeout*, two titles to wipe the smiles off Saturn owners.

It is now clear that Sega rushed the conversion of *Daytona* for the sake of early consumers. What the company didn't consider was the long-term effect it would have on the company. If Sega has enough disposable income to reconvert *Virtua Fighter* to a *Remix*, why not *Daytona*? Add Sega's new SGL for overall improvement for games and it's all the more reason why the company should consider it.

I'm sure there are lots of Saturn owners waiting for this to happen, and considering Saturn only has one decent racing game to its library (*Sega Rally*) it would fill a big gap.

S W Tsang, Weat Midlands, Coventry

It's unfair to say Saturn has just one good racing game but, yes, a 'proper' conversion of *Daytona USA* would be very welcome.



Now Sega has proved Saturn is capable of 3D games to rival PlayStation, why don't Sega 'remix' Daytona USA, asks S W Tsang



Edge's critical review of *Ridge Racer Revolution* was inconsistent with its complimentary comments about *VF Remix*, claims Robbie Moss

Sega is looking into such a project at present, although if a new game appears it won't merely be a better conversion than the original but a fully fledged update with extra features including a selection of new tracks.

In **E**29 I read your review of *Ridge Racer Revolution* in which you criticised Namco for basically releasing the same game as *Ridge Racer* except for a few new features (two player link-up, reduced clipping and 'pop-up', a rear view mirror, etc). I agree with the review and rating in that *Revolution* should have been more of an improvement on *Ridge* (like *Sega Rally* over *Daytona USA*) and not a stop-gap before *Rave Racer*.

It is a pity, then, that your reviews are not consistent. When *Virtua Fighter Remix* was reviewed in **E**24, the reviewer obviously judged it as a game in its own right (and not just *VF* with texture-mapping), whereas it seems *Ridge Racer Remix* (as labelled in the accompanying screen shots) was treated as nothing more than an update.

This isn't a tired old Saturn vs PlayStation letter, but surely both games should have been reviewed from the same viewpoint? Inconsistent reviewing is not a regular criticism of **Edge**, but in this case I feel an explanation is required to clear up this confusion.

Robbie Moss, Kirkby, Merseyside

The fundamental difference between *RRR* and *VF Remix* is that *Remix* was never billed as anything more than that, with a price to reflect this, too. *Ridge Racer Revolution* promised so much more than it delivered, and was never marketed as anything but the next step beyond *Ridge Racer*, in both graphics and gameplay. The reality, of course, is that a year after PlayStation and Saturn's launch Namco could only produce a similar version to the original, whereas Sega surpassed *Virtua Fighter* with *VF2* and *Daytona* with *Sega Rally*. True, the early Sega games may not have compared favourably with Namco's original PlayStation lineup, but the reviews of the time reflected that accurately, as did the reviews of the later titles.

A paradox exists in the videogaming world – the better the game, the more addictive it is, and the more likely you are to play through it within a few days. The amount of continues offered by many new releases is ludicrous – you try to be disciplined, but the temptation is just too great.

Surely with the advent of polygonised gaming environments, rendered on the fly, the inclusion of an optional randomly-generated version of a game would give a title almost limitless longevity and provide much better value for money. Difficulty levels shouldn't just mean more enemies throwing more bombs. I'm no programmer, but I can't believe that it would be too difficult to make games truly random – I mean what's the point of having a game like *Virtua Cop* rendering in realtime if it is basically conforming to a prerended set of parameters? Just think how much more challenging it would be if you never knew where the next bad guy was coming from!

If publishers think consumers will not buy their next title because they are still getting enjoyment out of their last, then I think they are seriously misjudging the gaming community.

David Steer, London

Many modern videogames, for their price, offer little in terms of longevity – thanks to the number of continues offered, **Edge** managed to complete *Virtua Cop* within two hours. Whether randomly-generated landscapes would add anything to a game is debatable, however.

There are few games in history which use randomly-generated landscapes. Mike Richardson's *Scuba Dive* on the Spectrum, and David Braben's *Virus* on 16bit both created scenery on the fly, but it was the actual gameplay that made the games special, not the additional extras. Would *Virtua Cop*, which, incidentally, streams all the scenery from CD and therefore is automatically constrained by those factors, be any better if the baddies appeared from the left when you were expecting them from the right? On the contrary, this would probably irritate more than impress.

To actually create a landscape that is truly interactive and satisfies all the requirements made by modern videogames is far from easy. Not only must algorithms be written that enable all areas of a landscape to be accessible, but objects, puzzles, traps, etc, have to be strategically placed within this computer-generated world to add to the gameplay. Could *Super Mario 64*, with its delicate balance between gameplay and exploration, cope in such an environment? Of course not – it takes human creativity to sculpt such an intricate world.



Modern videogames fail to deliver anything close to value for money, says David Steer. The answer, he suggests, is to write algorithms that create a randomly-generated world for each game, but how easy is that?

Nextmonth



Next month, **Edge** heads to Liverpool to investigate the phenomenon that is Psygnosis. Having kickstarted the 16bit revolution in the late eighties, the company has consistently maintained a reputation for producing graphically outstanding software. Since then, it has proved it has the vision and talent to make a world class videogame. **Edge** takes a long hard look at what the future holds for Psygnosis, including an exclusive look at *Wipeout 2*.

Also in issue 33: an exposé of *Murder Death Kill*, Shiny Entertainment's foray into the world of grown-up videogames; Interactive Magic's 'Wild' Bill Stealey reveals his plans for global online gaming; and **Edge** casts its discerning eye over an expanding agenda, devoting a whole new monthly section to a more eclectic interactive entertainment mix.

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